PUBLIC

Derbyshire and Derby
Joint Strategic Needs Assessment
Falls in Older People

February 2017

DERBYSHIRE County Council

Derby City Council

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Executive Summary

This report describes the findings of the Derby and Derbyshire falls needs assessment 2017. It focuses on the needs of older people aged 65 years or over who have fallen in their home, in the community, in residential or nursing care homes and in hospitals. The outcome of this assessment will help identify gaps in or changes to existing service provision that can be addressed through commissioning, and will help agree priorities for future resource allocation to prevent and reduce the impact of falls, improve health and reduce inequalities.

The work to develop this report has involved: - a stakeholder conference to inform the JSNA and its recommendations; a literature review of published evidence; use of modelled data and actual data - from EMAS, A&E and service providers such as DCHS - to identify the impact of falls on the local population; identification of local services; and economic modelling of interventions to reduce falls and their impact.

Analysis of the epidemiological data shows that falls are one of the largest causes of emergency hospital admissions for older people and create a significant demand for ambulance services. Around one third of older people (70,100) will fall each year and as a consequence there are around 11,000 ambulance call outs. In Derby and Derbyshire around 60% of fallers are conveyed to hospital. In 2014/15 there were 6,000 hospital admissions due to falls and approximately 6% (4500) were coded as injurious (broadly in line with the published evidence). The data shows that the risk of injurious falls increases with age and females are at greater risk than males. Across the City and County around 1100 older people sustain a hip fracture as a result of falls. As the population of Derby and Derbyshire ages, the projected number of falls is expected to increase.

In Derbyshire around 4.5% of older people reside in care or nursing home, but in 2014/15 they accounted for a 18.4% (816) of injurious falls and 22.5% of hip fractures (250) reflecting an older, frailer population with complex multi morbidities.

Derbyshire has similar or worse admissions from injurious falls and hip fractures across the range of indicators, compared to England and the comparator CIPFA group. Chesterfield, Southern Derbyshire and High Peak districts are significantly worse than the England average for injurious falls. Chesterfield is also worse than the England average for hip fractures.

Derby performs similar or worse on injurious falls, and similar or better on hip fractures compared to England. They are somewhere of the middle of the comparator CIPFA group.

A literature review found that falls are not an inevitable consequence of aging and there is strong evidence supports the notion that one third of falls are preventable by identifying those at highest risk, ensuring that they receive a multi-factorial assessment and implementing appropriate interventions such as strength and balance exercise etc.

Economic modelling work that has been undertaken found that these interventions are cost effective and implementation of the key interventions could deliver net savings to the public sector of between £590K - £4m.

Key Needs and Service Gaps

- Awareness: Older people need to have improved awareness of the risks of falls and that many are preventable. We also need to raise awareness amongst health and social care professionals.
- Prevention activities: capacity and uptake of activities (e.g. strength and balance exercise classes) to reduce the primary risk of falls is limited.
- Falls pathway: Current absence of an integrated falls pathway across Derby City and Derbyshire to enable professionals to understand their role, refer to relevant falls prevention/ response services and coordinate on-going care.
- Risk identification: The existing processes for identifying those at higher risk of falling are limited; resulting in low referral numbers to primary and secondary prevention initiatives and services, high levels of unmet need and ultimately a high number of (preventable) falls in over 65s.
- Capacity: The capacity of existing community falls services is limited compared to potential demand.
- Improving outcomes/ cost savings: Potential to improve outcomes and achieve cost savings to the system:
    - 20% of Ambulance call outs coded as less serious (Green 4) may not need EMAS and could be attended by other providers e.g. Falls Recovery Service.
    - 13% of admissions were likely to have been avoidable because injuries were superficial. Emerging evidence from a pilot in Leicestershire suggests that further admissions could be avoided if more effective measures were in place to assess and provide support to fallers who have minor injuries.
- Data collection: Limited data on the impact of falls services to enable effective evaluation of the current picture and assess areas of inequity/inequality.

Recommendations for Commissioners and Partners

- Across Derby and Derbyshire a place based approach should be established to reduce the number of hospital admissions due to falls, with a particular focus on the three Districts (Chesterfield, High Peak and South Derbyshire) with the highest rate of injurious falls.
- Develop an integrated falls pathway for Derby and Derbyshire to enable the identification and rapid referral of people identified at higher risk of falls to appropriate falls prevention services. All health/social care staff and other professionals who regularly work with older people should be made aware of the pathway and provided with relevant training/support to ensure its successful implementation.
- Increase capacity and uptake of community based primary falls prevention activities e.g. strength and balance training, particularly within the Derby City area.

- Review the current arrangements for EMAS responding to fallers particularly those coded as ‘Green’ to assess the opportunities to deliver a Derbyshire wide service that is more cost effective and responsive.

- A review should be undertaken of DCHS ‘falls services’ currently commissioned to ensure that the service is providing a consistent approach across the County, has sufficient capacity to deal with ‘high risk fallers’, has better collaboration with primary falls prevention services such as Strictly No Falls and can provide data on patient outcomes.

- Clinical audits should be carried out in primary care to assess whether older people living in the community are asked about falls and are referred for multifactorial assessments and interventions in line with current NICE Guidance. Similar audits should be carried out for those attending hospitals due to an injurious falls.

- Establish a single site information portal for falls providing a universally available pool of knowledge, guidance, awareness raising and training materials/e-learning to act as the main local resource/reference point, both for direct access by the public (individuals and their families/carers) and for use by hospital, community health, social care and third sector staff.

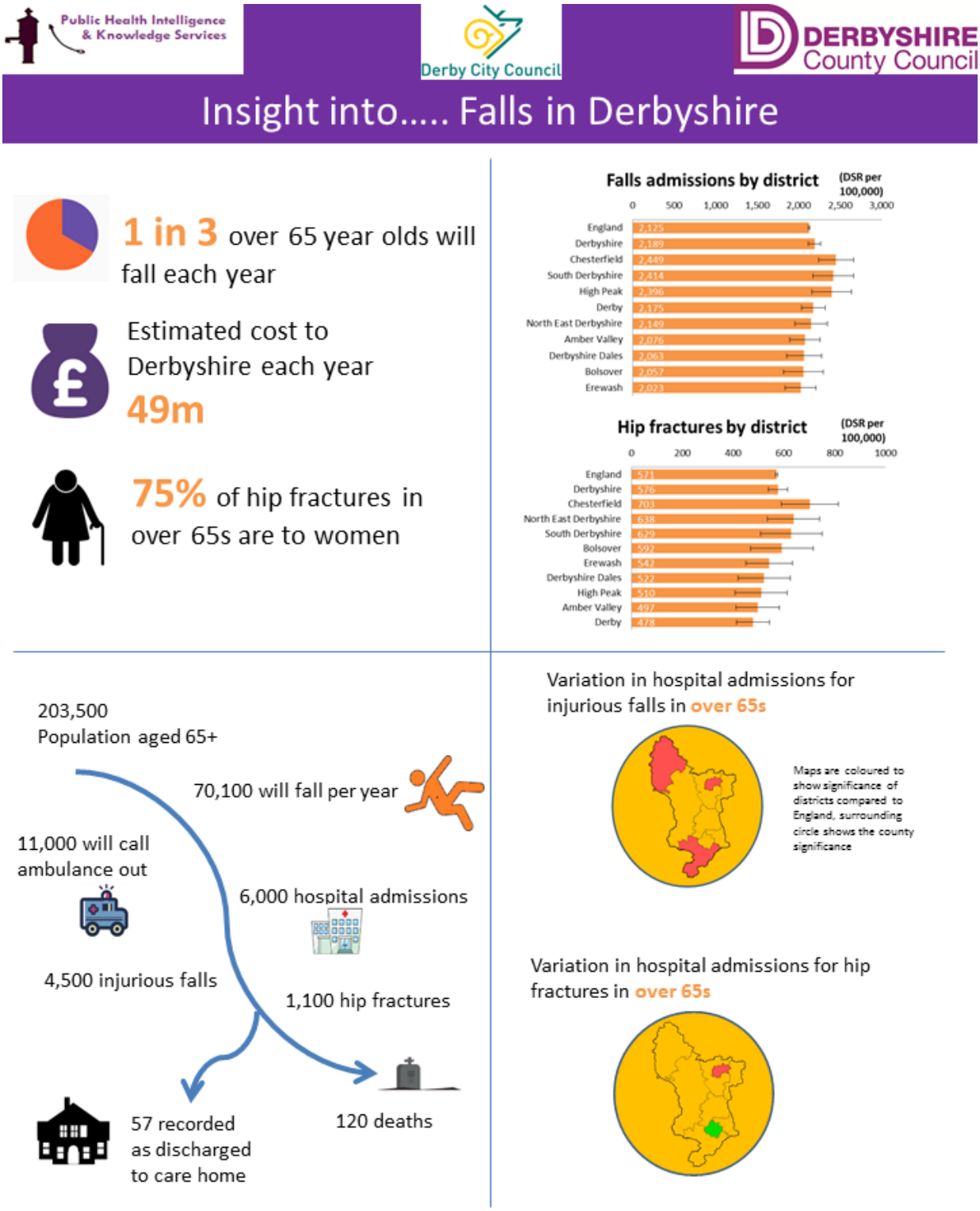
- Review and agree core shared data set requirements and data collection/reporting requirements across the system, to facilitate more effective evaluation of existing falls services and the impact of falls across the health and social care system.

- A MECC approach should be taken to raising awareness amongst older people and carers that falls are not an inevitable part of ageing, encourage active ageing and helping people to reduce their risk of falls.

- A review of the approach taken by those CIPFA neighbours of Derbyshire (such as North Yorkshire) that have better performance in preventing injurious falls, should be undertaken to identify what lessons could be learnt.

Figure 1 (overleaf) provides an infographic summary of falls in Derbyshire and Derby.

Figure 1: *Infographic of Falls in Derbyshire*



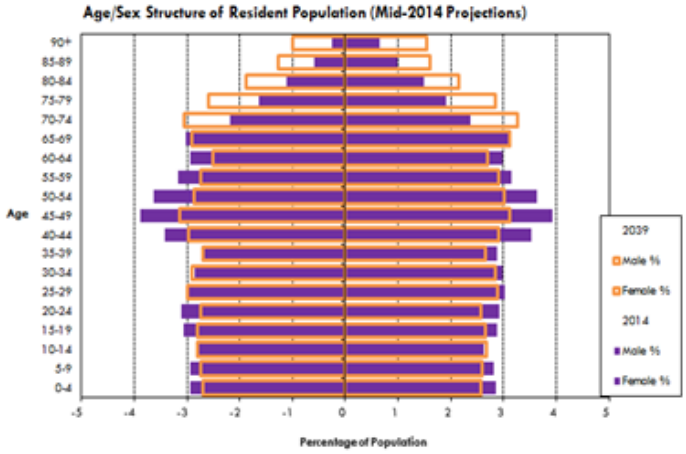
Public Health Intelligence & Knowledge Services

Derby City Council

DERBYSHIRE County Council

Insight into….. Falls in Derbyshire

Our 65+ population will grow 32% between 2014 and 2039…



From 203,592

To 268,029

Which could mean an additional 21,000 falls per year

In a perfect world …

We find all 70,100 people who fall → Carry out an MFRA with all of them

Refer to appropriate Multifactorial interventions

- Strength and balance training
- Medicines reviews
- Environmental adaptions
- Visior

Falls alert service diverts non-conveyed activity from EMAS, saving 633k

Ambulatory care reduces avoidable admissions to hospital, saving 977k

These extra interventions would cost £6.9 million

Could reduce falls by 29% saving £14.8 million

Estimated net saving to Derbyshire each year **£9.3 - £10.8m**

Data are for Derbyshire STP area including Derby City. Sources: Public Health Outcomes Framework 2014/15 for over 65s[1], Census 2011[2], NHS Digital[3], SUS/GEM

Chapter 1 - Background

1.1 Introduction

Falls are predominantly a problem in older age and as the population ages we observe a concomitant rise in the number of falls and fall-related injuries. Falls have significant human costs as well as financial costs to our health and social care system and society.

A fall is a symptom, not a diagnosis. It can be a marker for the onset of frailty, the first indication of a new or worsening health problem and/or can represent a tipping point in a person's life, triggering a downward decline in independence. Falls are commonly associated with frailty, but it is not only frail people who fall.

Many falls are preventable. People aged >65 years over have a 30% risk of falling at least once a year and increasing to 50% in those aged >80 years. Falls can lead to pain, distress, injury, loss of confidence and even death in some cases. They also increase attendances at A&E, admissions to hospital, social care support needs and long-term admissions to residential care homes.

1.2 Policy Context

National Policy

Falls and bone health are a national priority; the Public Health Outcomes Framework (PHOF)[1] includes indicators for injuries due to falls in people >65 years; the NHS Outcomes Framework (NHSOF)[4] includes 'helping people to recover from episodes of ill health or following injury' (domain 3) and the Adult Social Care Outcomes Framework (ASCOF)[5] relating to 'enhancing the quality of life for people with care and support needs' (domain 1) and 'delaying and reducing the need for care and support' (domain 2).

There have been a number of national policy and strategy documents related to falls and bone health:

National Policy and Strategy Documents

- *The assessment and prevention of falls in older people*, NICE Clinical Guidelines CG161, 2013[6]
- *Public Health Outcomes Framework 2013 to 2016*, DH[7]
- *Adult Social Care Outcomes Framework 2013/2014*, DH, 2013[8]
- *Breaking Through: Building Better Falls and Fracture Services in England*, Age UK and National Osteoporosis Society, 2012[9]
- *Implementing FallSafe care bundles to reduce inpatients falls*, Royal College of Physicians (RCP), 2012[10]
- *National Audit of Falls and Bone Health in Older People*. Royal College of Physicians, 2011[11]
- *Stop falling: start saving lives and money*, Age UK, 2010[12]
- *Falls and fractures: effective interventions in health and social care*, DH, 2009[13]
- *The Care of Patients with Fragility Fracture*, British Orthopaedic Association and British Geriatrics Society, 2007[14]

Local Policy

The Derbyshire Health & Wellbeing Strategy 2015-17[15] has two priorities relevant to falls, namely:

- Keeping people healthy and independent in their own home;
- Creating healthy communities

Derby's Health and Wellbeing Strategy 2014-19[16] details objectives under the priority 'promoting health and wellbeing':

- To achieve health and social care system transformation
- To shift care closer to the individual
- To reduce inequalities in health and wellbeing

There is currently no falls prevention strategy for Derbyshire.

Chapter 2 – Epidemiological Information

2.1 Falls – the issue

Falls and fall-related injuries are a common and serious problem for older people. People aged >65 years have the highest risk of falling, with 30% of people >65 years and 50% of people >80 years falling at least once a year[6]. World Health Organisation (WHO) states that more than 50% of injury related hospital admissions amongst people aged 65 and over are caused by falls[17]. Between 10-25% of fallers will sustain a serious injury requiring hospital admission including mainly hip fractures, traumatic brain injuries and upper limb injuries[14]. Falls are estimated to cost the NHS and social care more than £2.3 billion per year[6].

2.2 Risk factors for falls in older people in the community

Falls should not be considered a normal or inevitable part of ageing. There are numerous risk factors that increase the likelihood of falls in older people[18]. Groups at elevated risk of falls include those aged >75 years, inactive people and those living in relative isolation[6].
Risk factors for falls in older people can be grouped into those that are internal/ individual and those that are external/ environmental. Table 1 (below) summarises key internal risk factors:

Table 1: Statistical summaries of falls risk factors[18]

Risk factor	Mean Risk/Odds Ratio (Range)
Muscle weakness	4.4 (1.5-10.3)
History of falls	3.0 (1.7-7.0)
Gait deficit	2.9 (1.3-5.6
Balance deficit	2.9 (1.6-5.4)
Use of assist devices	2.6 (1.2-4.6)
Visual deficit	2.5 (1.6-3.5)
Arthritis	2.4 (1.9-2.9)
Impaired activities of daily living	2.3 (1.5-3.1)
Depression	2.2 (1.7-2.5)
Cognitive impairment	1.8 (1.0-2.3)
Age >80 years	1.7 (1.1-2.5)

External factors can also increase falls risk[6], such as:

- Poor or cold housing
- Inappropriate footwear
- Home hazards such as poor lighting, stairs, absence of handrails, wet or polished floors, rugs, worn or unsecure carpets, reaching for storage such as high shelves

Many risk factors – such as balance impairment, muscle weakness, polypharmacy and environmental hazards – are potentially modifiable[6]. Falls rarely result from a single factor; predominantly being multifactorial with a combination of an interaction between internal and external risk factors[20-21]. Older people with multiple risk factors are at greater risk of having a fall. Recognising and modifying risk factors (where they are modifiable) is crucial in preventing falls. Multifactorial interventions have been suggested as the most effective strategy to reduce declines in function and independence thereby preventing associated costs of complications resulting from falls[22].

Most falls occur in the home; however incidence rates for falls in nursing homes and hospitals are two to three times greater than in the community and complication rates are also considerably higher[7]. 10% to 25% of institutional falls result in fracture, laceration or need for hospital care[22].

2.3 Who is at risk of falls resulting in fractures?

The consequences of falls can be minor, but as we age people are more likely to become unsteady and fragile, fall more frequently and the consequences more serious. Those with general fragility and osteoporosis resulting in bone density depletion are more likely to experience fractures following a fall[24]. The elderly are more likely to be fragile and women are more at risk of developing osteoporosis than men. Incidence of osteoporosis is around 30% for men and women aged over 70 rising to 40% for people aged over 80. Women aged over 80 have a 25% higher risk of osteoporosis[14].

Fractures resulting from falls are a major cause of mortality and disability in older people. Fractures are often a turning point for older people and those recovering from them (e.g. hip fractures) can require more continuing care from both health and social care services. The estimated annual cost of treating fractures caused by osteoporosis in the UK is £1.8 billion[13]. Other people at risk of fractures from falls include those with type 2 diabetes and those with epilepsy taking antiepileptic drugs (AED) - again higher in those with longer-term AED exposure[7]. Level of hip fractures is used as an indicator for falls and can indicate the need for preventative measures.

2.4 At risk of falling in the community

Modelled data for Derby City and Derbyshire, using 2015 mid-year estimates and prevalence estimates from ‘Falls and fractures: effective interventions in health and social care’, DH indicates that 70,000 people will fall in any given year[14]. The full table of modelled data is included in Appendices A and B of this report.

Table 2: *Modelled data showing all age population, population aged 65+ and number estimated to fall in any given year. (Sources: ONS 2015 mid-year estimates, DH[14], DCC PHIKS team)*

	Derbyshire (inc. Derby)	Total for 4 CCGs
All ages	1,036,616	1,036,844
65+	203,520	201,875
Will fall	70,101	69,535

2.5 At risk of falling in hospital

There were approx. 130,000 admissions in 2014/15 in those aged 65+ (exc. those admitted for a fall) and these are all considered at risk of a fall according to NICE guidelines[7]. In addition people aged 50-64 with certain conditions are also considered at risk but not quantified here. The National Audit of Inpatient Falls gives rates of falls per 1000 occupied bed days (OBD): Derby Royal achieves 8.27 while Chesterfield Royal achieves 8.67 against national average of 6.5, showing that inpatient falls are higher locally than nationally[25].

2.6 At risk of falling in a care home

Older people living in care homes are three times more likely to fall than those in the community; therefore as a third of over 65s are likely to fall, it is likely that all care home residents are at risk[13]. In Derbyshire there were 3669 care home beds without nursing and 4041 care home beds with nursing registered with the CQC as at 31/03/16. (Source: CQC)

2.7 Multifactorial falls risk assessment

Modelled data for Derby City and Derbyshire, using 2015 mid-year estimates and prevalence estimates from DH[13] indicate that 35,000 people will require an assessment each year (Appendix A). Current data from DCHS (Table 3) shows there were just under 5,000 referrals to community falls services, although this is known to be an underestimate. The vast majority of referrals were aged >65 years, most commonly those aged 86-95 years. The most frequent referrers were local GPs (Table 4). More accurate reporting of those receiving a multifactorial assessment (MFA) would enable a clearer assessment of population level needs.

Table 3: *Referrals to specialist community falls services, 2015/16. (Source: DCHS, unpublished)*

Age Range	Female	Male	Grand Total
Under 65	182	136	318
65-75	424	302	726
76-85	1,092	745	1,837
86-95	1,162	599	1,761
Over 95	156	51	207
Grand Total	**3,016**	**1,833**	**4,849**

Table 4: *Source of referral to specialist community falls services, 2015/16. (Source DCHS, unpublished)*

Referral source	Grand Total
GP	1513
Acute Hospital	998
EMAS	744
AIlied Health Professional	670
Community Hospital	378
Care Co-ordinator	350
Community Nursing	296
Intermediate Care Team	254
Social Care	250
Spa	250
Housing	187
Self-referral	139
Other	131
Community Matron	107
Care Home	87
Hospital (unspecified)	86
Specialist Nurse	79
A&E/MIU	42
Community Care Worker	32
Community Mental HeaIth Team	13
Voluntary Service	4
Day Centre	3
Falls Partnership Service (FPS)	2
Grand Total	**6615**

Table 4 shows the range of different sources of referral to specialist falls services received by DCHS. The majority are from GPs, closely followed by acute hospitals and the East Midlands Ambulance Service (EMAS). Discrepancies in between tables 3 and 4 are explained by the

occurrence as duplicates where one person may have been referred to DCHS multiple times per year by different referral sources.

2.8 Falls in the community- attended by an ambulance

There were nearly 11,000 ambulance call outs in Derbyshire (including Derby City) for falls, to people aged 65+ in 2015/16. Just under 60% were conveyed to hospital, this varied slightly by CCG. (Source: GEM/EMAS, 2015/16 data, unpublished)

Table 5: *Ambulance call outs for falls in people aged 65+ in 2015/16. (Source: GEM/EMAS, unpublished)*

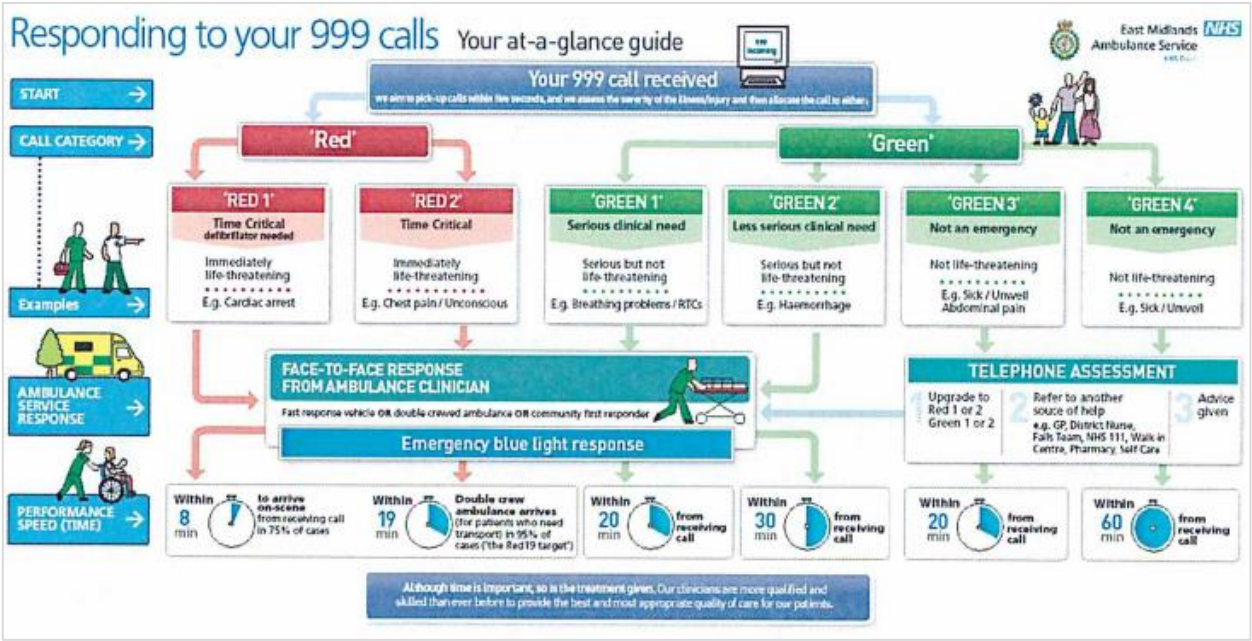
	Total	Conveyed	% Conveyed
NHS Erewash CCG	1,156	658	57%
NHS Hardwick CCG	1,087	597	55%
NHS North Derbyshire CCG	3,227	1,949	60%
NHS Southern Derbyshire CCG	5,475	3,230	59%
Derbyshire	**10,945**	**6,434**	**59%**

Table 6: *Ambulance call outs for falls in people aged 65+ in 2015/16, by AQI (Ambulance Quality Indicator) code. Red 1 is most serious, Green 4 is least. For explanation of codes see Figure 1 below. (Source: GEM/EMAS, unpublished)*

	RED1	RED2	GREEN1	GREEN2	GREEN3	GREEN4	TOTAL
NHS Erewash CCG	9	198	2	899	1	292	1,401
NHS Hardwick CCG	4	197	1	798	0	256	1,256
NHS North Derbyshire CCG	26	615	10	2,432	9	647	3,739
NHS Southern Derbyshire CCG	66	1,049	11	4,056	12	1,354	6,548
Derbyshire	**105**	**2,059**	**24**	**8,185**	**22**	**2,549**	**12,944**

Green 4 call outs are categorised as ‘non-emergency, non-life threatening’ yet account for 20% (2549 of total 12,944) of call outs, it is likely a proportion of these did not need EMAS assistance. Discrepancies between table 5 and 6 are potentially explained by the re-categorisation of call outs.

Figure 2: *Categorisation of 999 calls (Source: EMAS call categorisation overview[29])*



2.9 Falls Alert Service

The falls alert service commissioned by Derbyshire County Council attended 5418 falls in 2015/16, and only 15% were then referred to an ambulance. There is an equivalent service in Derby City which attends approximately 1,000 fallers per annum. (Source: year to date data for 16/17, CareLink, unpublished). We do not currently have data on the % that are conveyed to hospital.

Table 7: *Breakdown of Falls Alert Service attendances, by month. (Source: DCC, 2015/16, unpublished)*

Calendar Month in 2015/16	No. attendances
Apr	434
May	424
June	424
July	458
August	431
Sept	456
Oct	427
Nov	435
Dec	494
Jan	517
Feb	422
March	496
Total	**5418**

Table 8: *Outcome of Falls alert service attendances, where escalated. (Source: DCC, 2015/16)*

	Total	% of all falls
Ambulance called for Fall	838	15.5%
Call handler requested	407	7.5%
Warden on site requested	376	6.9%
Client requested	26	0.5%
Carer, neighbour etc.	24	0.4%
Other	5	0.1%
Faller Soiled	35	0.6%
111	97	1.8%
Falls Subtotal	**5418**	**100%**

2.10 Accident and Emergency

6,722 (60%) people aged 65+ were transported to hospital following a fall in 2014/15 and 6434 (58%) in 2015/16[25]. From the admissions data we know from 4027 injurious falls in 15/16, that 3851 (96%) had admission source A&E (Source: GEM/SUS, unpublished). It is not possible within the A&E dataset to accurately identify falls as there is not a diagnostic code for this.

2.11 Hospital admissions- All falls

There were nearly 6,000 hospital admissions due to falls in 2014/15 to Derby/Derbyshire patients (where there was an external cause relating fall/s).Table 9 below indicates the majority of these were injurious falls (where there was also a primary diagnosis of an injury in addition to the falls code), but there were a number of other areas with high numbers of admissions e.g. musculoskeletal, senility and urinary which indicates a proportion of these were likely to have been avoidable.

Table 9: *Breakdown of primary diagnosis for all falls admissions, 2014/15 (Source: HES, DCC PHIKS team)*

Diagnosis chapter	No. of Admissions
Injuries and poisonings	4,440
Diseases of the musculoskeletal system and connective tissue	441
Symptoms/signs not elsewhere classified (inc. senility, fainting, syncope)	263
Diseases of the circulatory system	224
Diseases of the respiratory system	166
Diseases of the genitourinary system	120
Diseases of the nervous system	35
Mental/behavioural disorders	33
Certain Infectious and parasitic diseases	32
Diseases of the digestive system	27
Endocrine/metabolic/nutritional (inc. diabetes)	23
Diseases of the skin and subcutaneous tissue	21
Neoplasms (inc. cancer)	21
Blood/immune disorders	8
Diseases of the eye/adnexa	8
Grand Total	**5,862**

2.12 Hospital admissions- Injurious falls

The majority of falls result in no serious injury, but annually approximately 5% of older people living in the community who fall experience a fracture or need hospitalisation[22]. There were 4,027 injurious falls across the 4 CCGs in 2015/16 (Source: SUS/GEM, unpublished), or 4,440 across Derbyshire/Derby City local authorities in 2014/15 (Source: PHOF[1]). The totals for Derbyshire in table 10 versus those in table 11 vary because the former is based on GP registration and hence the registered population, the latter is based on postcode of residence of the patient.

***Table 10**: Injurious falls 65+ by financial year and CCG (Source: SUS/GEM, unpublished)*

CCG	1314	1415	1516
03X: NHS Erewash CCG	360	380	370
03Y: NHS Hardwick CCG	457	424	414
04J: NHS North Derbyshire CCG	1,310	1,341	1,317
04R: NHS Southern Derbyshire CCG	1,898	1,994	1,926
Grand Total	**4,025**	**4,139**	**4,027**

***Table 11:** Injurious falls 65+ Derby City and Derbyshire county LAs, 2014/15 (Source: PHOF[1])*

	All	males	females
65-79	1,415	526	889
80+	3,025	862	2,163
Total Injurious falls 65 +	**4,440**	**1,388**	**3,052**

Source: PHOF, 14/15 data, local authority level

Figure 3 shows the variation across the county in terms of admission rates from injurious falls, Chesterfield is the district with the highest rate. Figure 4 is trend data for injurious falls is presented first for Derbyshire and Derby City LAs, then for the 'worst' 3 districts. These show that there is a consistent upward trend across areas in the rate of injurious falls.

Figure 5 shows the variation by 'place' which shows the worst 5 areas are City Centre North, Chesterfield East, Southern Derbyshire, City North West and High Peak. There is considerable overlap of confidence intervals reflecting the low numbers when comparing such small areas therefore caution should be taken in interpretation.

Figure 3: *Injurious falls 65+ by district, DSR per 100,000, Derby City and Derbyshire county, 2014/15 (Source: PHOF[1])*

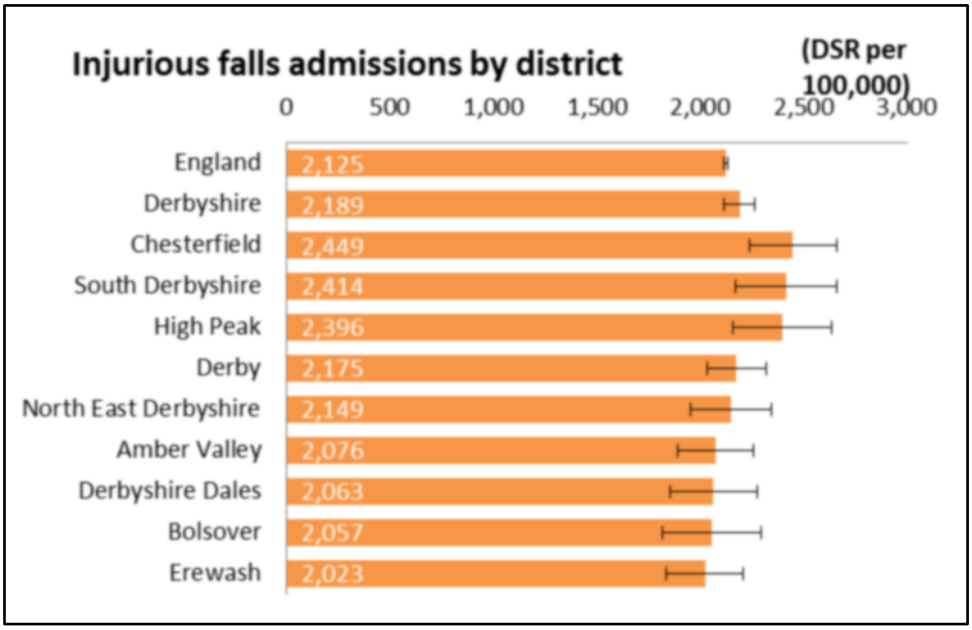
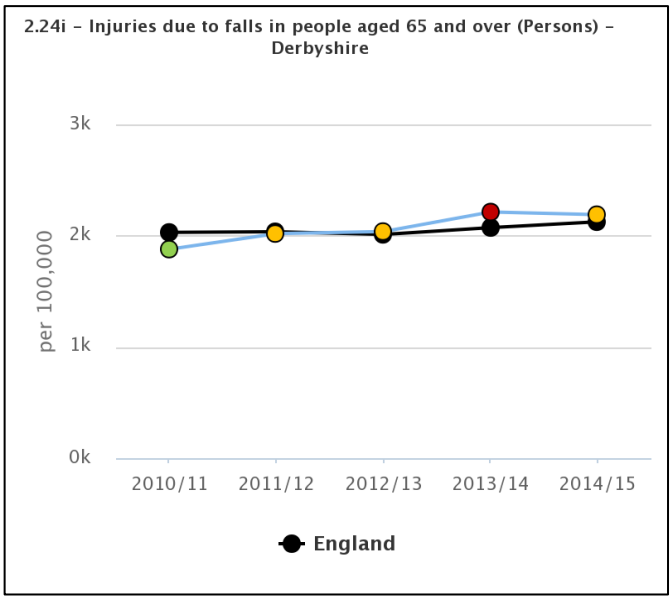
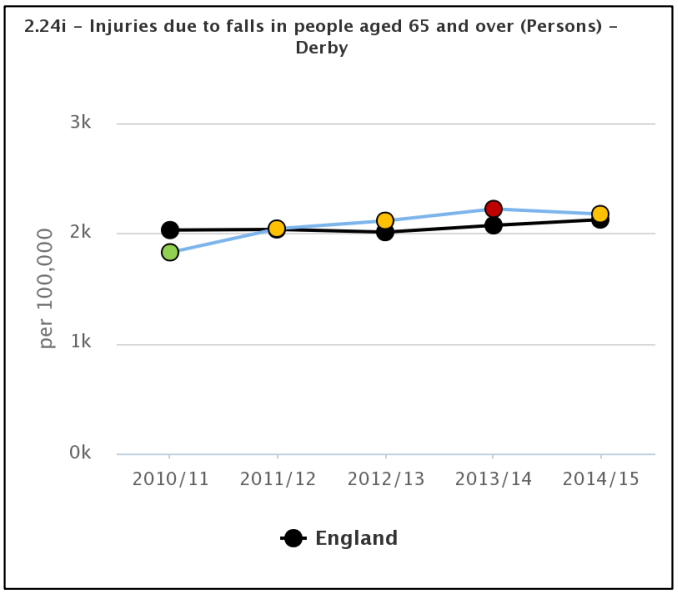
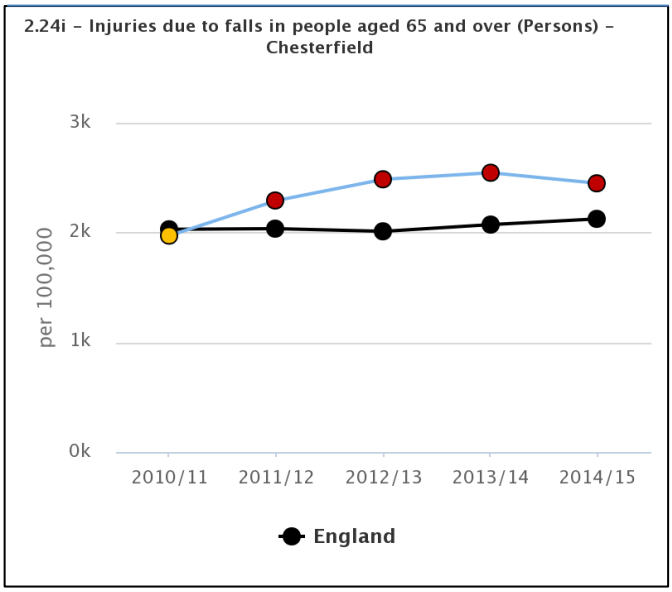
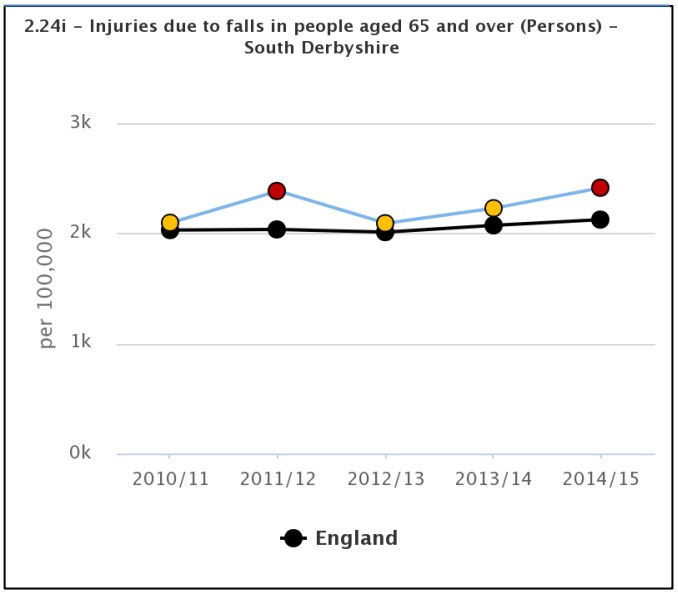


Figure 4: Trends: Injurious falls (Source: PHOF[1])









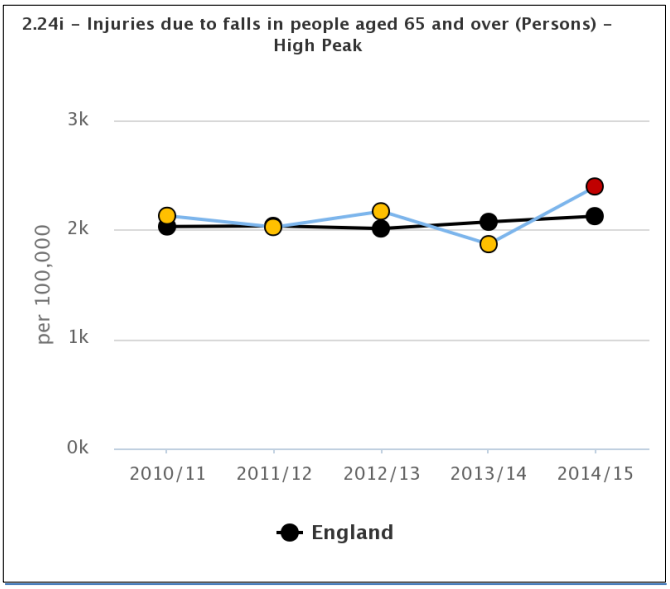


Figure 5: *Crude injurious falls rate 65+, by place, 2014/15 (Source: HES[3]/DCC PHIKS team, unpublished)*

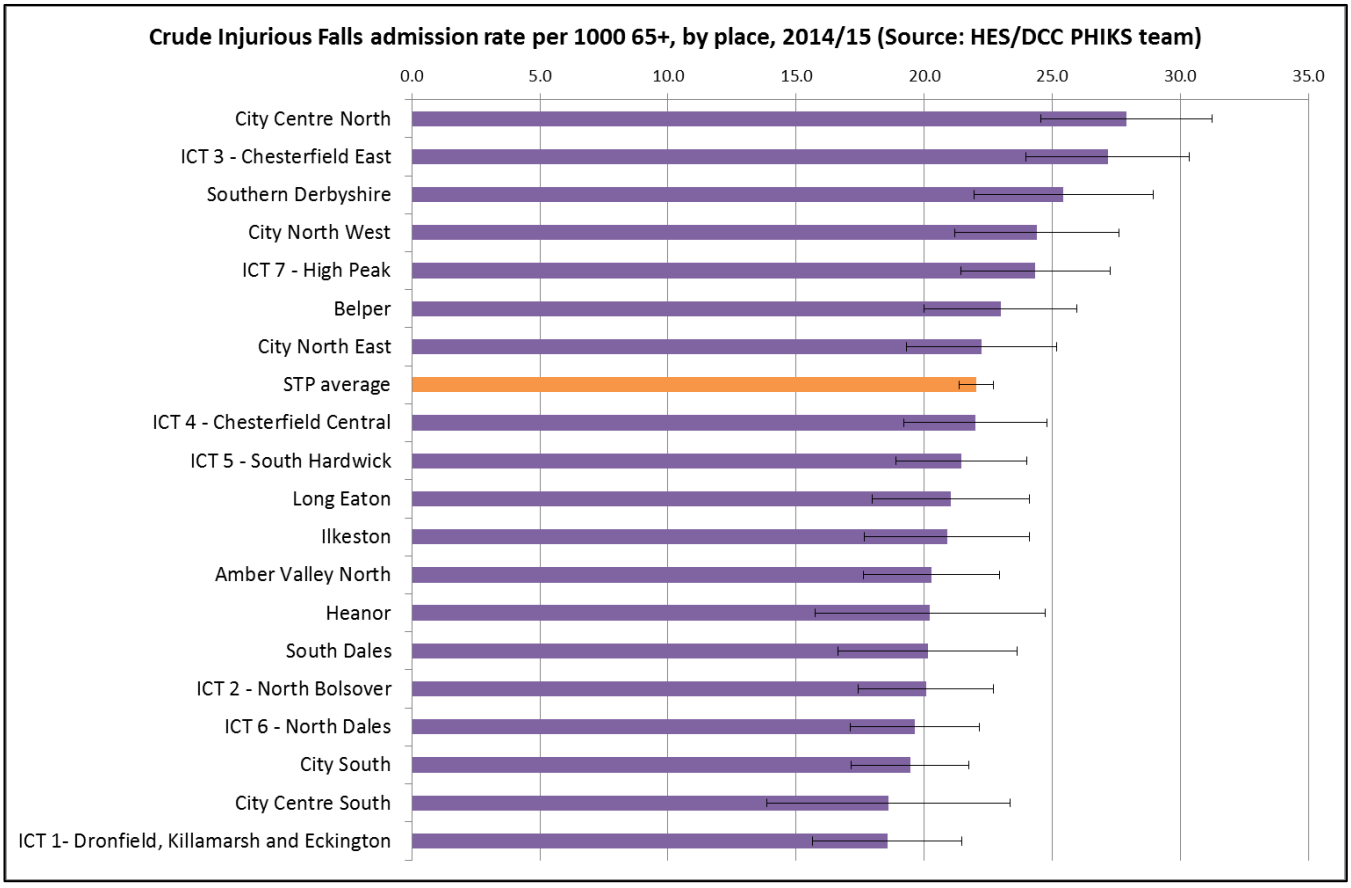


Figure 6: *Injurious falls 14/15 65+ by age (breakdown of the 4,440 by individual age) (Source: HES/DCC PHIKS team, unpublished)*

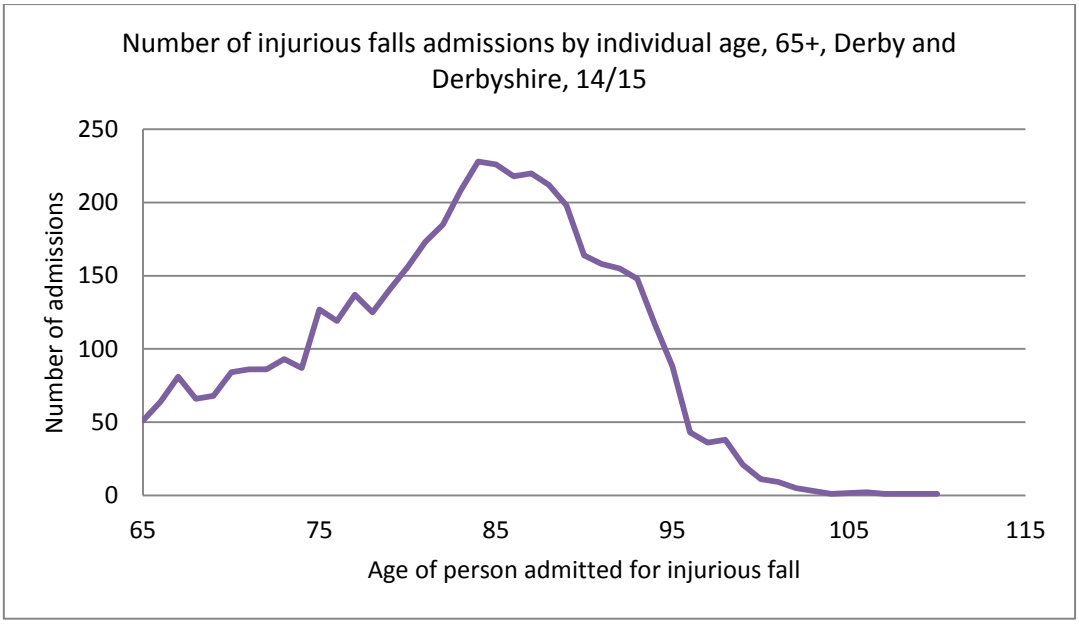
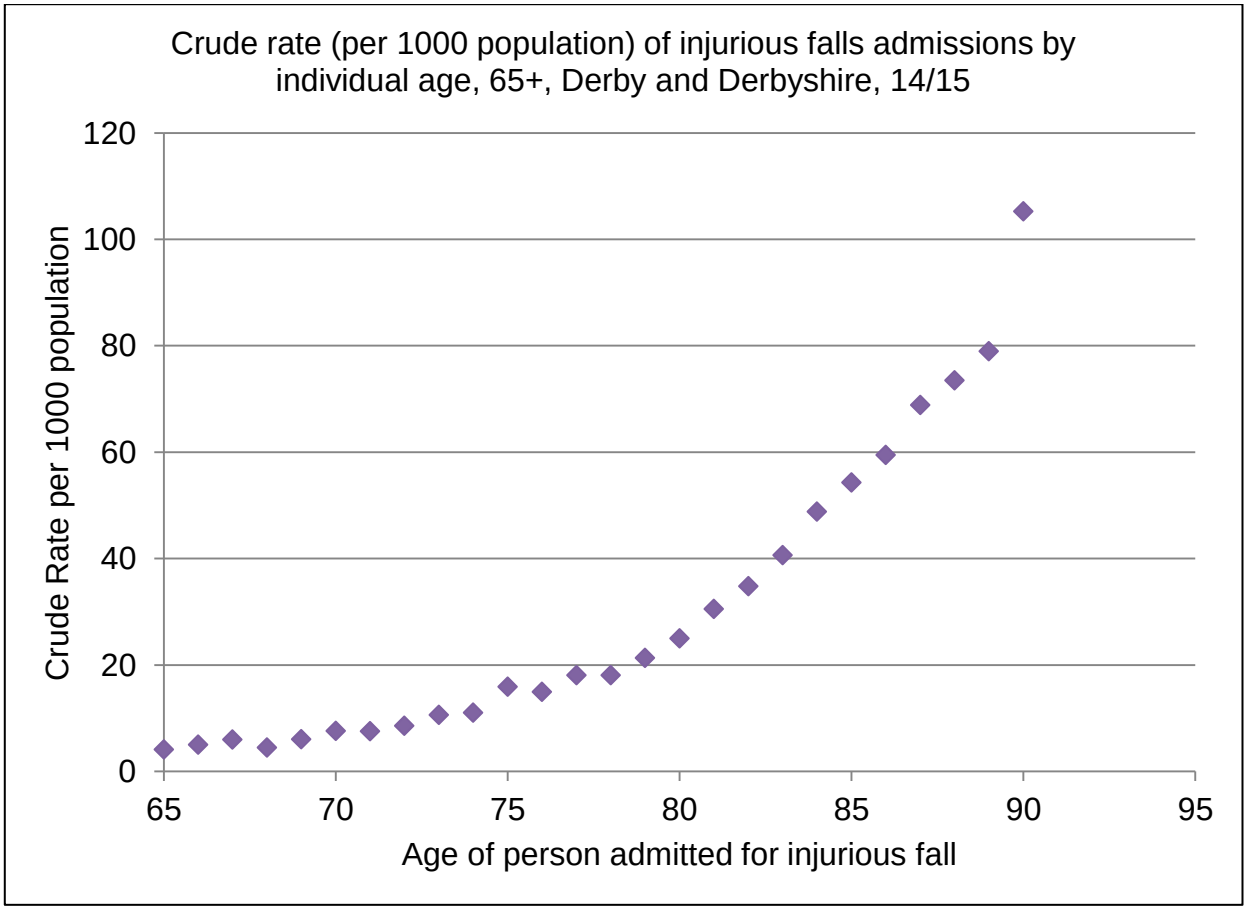


Table 12: *By age band, 14/15 data (breakdown of the 4,440 by 5 year ageband) (Source: HES/DCC PHIKS team, unpublished)*

Ageband	Number of injurious falls admissions	Population (2015 mid-year estimate, Derby + Derbyshire)	Crude Rate per 1000 pop
65-69	330	64,463	5.1
70-74	436	49,080	8.9
75-79	649	37,036	17.5
80-84	950	27,016	35.2
85-89	1,074	16,417	65.4
90+	1,001	9,508	105.3
Grand Total	**4,440**	**203,520**	**21.8**

Figure 7: *Crude rate (per 1000 population) of injurious falls admissions by individual age, 65+, Derby and Derbyshire, 14/15 (Source: HES/DCC PHIKS team, unpublished)*



Note- population not available by individual age for 90+, therefore the crude rate at this point appears to jump as the point is actually for 90+.

Figures 6, 7 and table 12 show that prevalence of falls increases sharply with age, with the highest numbers occurring around age 85, and crude rates increasing gradually from age 65.

2.13 Injurious falls by injury

The 4,400 injurious falls across Derby City and Derbyshire can then be broken down by type of injury, so we can consider how serious they were, and whether hospital admission was appropriate.

Table 13: *breakdown of the 4,440 injurious falls by diagnosis (Source: HI team, Derbyshire PH team, using HES data 14/15. Numbers in brackets give number that were coded as 'superficial')*

Type of injury	Number of admissions
Injuries to the head	1,529 (432 superficial)
Injuries to the hip and thigh	1,238 (30)
Injuries to the knee and lower leg	371 (51)
Injuries to the shoulder and upper arm	345 (14)
Injuries to the elbow and forearm	307 (17)
Injuries to the abdomen, lower back, lumbar spine and pelvis	251 (18)
Injuries to the thorax	162 (18)
Injuries to the wrist and hand	85 (3)
Injuries to the ankle and foot	49 (3)
Injuries to the neck	43 (4)
Complications of surgical and medical care, not elsewhere classified	21
Injuries involving multiple body regions	14 (3)
Certain early complications of trauma	14
Injuries to unspecified part of trunk, limb or body region	5 (2)
Other and unspecified effects of external causes	3
Burns and corrosions	3
Grand Total	**4440 (595 superficial)**

This shows that there were 595 out of the 4,440 injurious falls that were superficial, which is 13%, and these admissions could potentially be avoided.

2.14 Falls to care home residents

It has been possible for GEM to extract an approximate figure for falls admissions based on care home data sourced from NHAIS on a monthly basis to identify admissions associated with care homes for the 65 plus age group. Care homes are identified by postcode and Residential Institute code. The presence of an RI Code will always override any postcode match. Despite this there will still be a small numbers of patients included in the care homes falls admissions that are not care home patients but are patients over 65 plus age group who reside in private residence and share the same postcode as care home residents.

Table 14: *Injurious falls in 65+ at care home postcodes (Source: SUS/GEM, unpublished)*

CCG	1314	1415	1516
03X: Erewash CCG	59	56	58
03Y: Hardwick CCG	99	89	77
04J: North Derbyshire CCG	261	263	261
04R: Southern Derbyshire CCG	333	408	289
Grand Total	**752**	**816**	**685**

Table 15: *Hip fractures in 65+ at care home postcodes (Source:* SUS/GEM, unpublished*)*

CCG	1314	1415	1516
03X: Erewash CCG	21	17	17
03Y: Hardwick CCG	37	27	32
04J: North Derbyshire CCG	83	79	82
04R: Southern Derbyshire CCG	93	127	100
Grand Total	234	250	231

2.15 Fractures

There are approximately 1,100 hip fractures per year, the majority occurring in females aged over 80. Tables 16 and 17 below show this data broken down by CCG and financial year, and then by age and gender.

Table 16: *Hospital admissions from hip fractures by financial year and CCG. (Source: SUS/GEM, CCG level, unpublished)*

CCG	1314	1415	1516
03X: NHS Erewash CCG	104	106	96
03Y: NHS Hardwick CCG	134	125	123
04J: NHS North Derbyshire CCG	335	360	379
04R: NHS Southern Derbyshire CCG	528	503	500
Grand Total	**1101**	**1094**	**1098**

Table 17: *Hospital admissions from hip fractures by age and gender, for Derby City and Derbyshire County (Source: PHOF 2014/15, local authority level)*[1]

	All	males	females
65-79	344	106	138
80+	808	198	610
Total Hip fractures 65+	**1152**	**304**	**848**

2.16 Hip fractures by district.

The following extract from PHOF[1] (figure 8) shows that there is considerable variation in hip fractures across the County and Derby City, with admissions statistically higher than England in Chesterfield, similar to England in most of the districts and lower than England in Derby City. Figure 9 shows the variation across the area by 'place', and the worst 5 places are Chesterfield East, Southern Derbyshire, Belper, South Hardwick and City North West. There is considerable overlap of confidence intervals reflecting the low numbers when comparing such small areas therefore caution should be taken in interpretation.

Figure 8: *Hip fractures 65+ by district, DSR per 100,000, Derby City and Derbyshire county, 2014/15 (Source: PHOF*[1]*)*

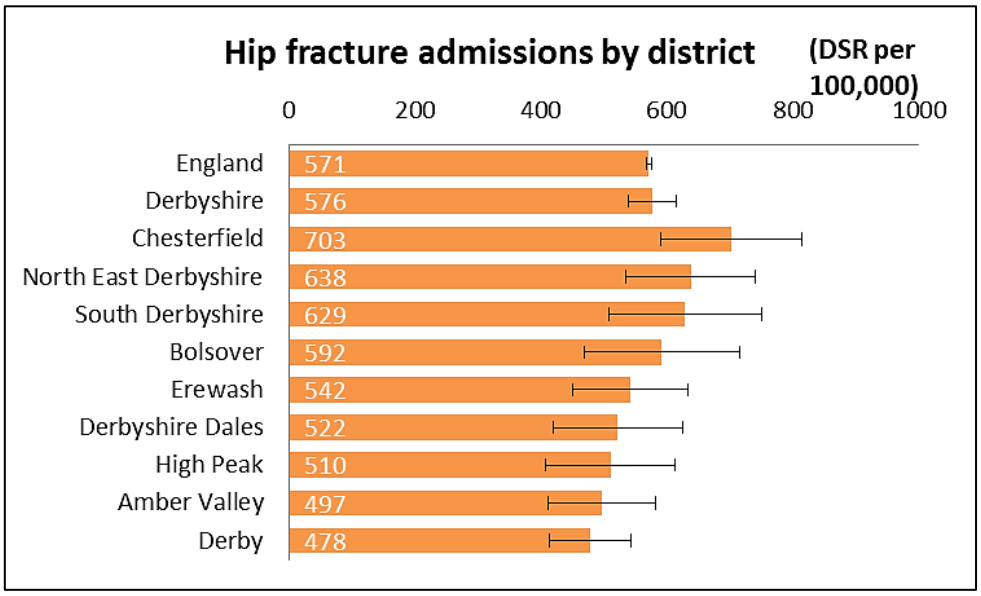
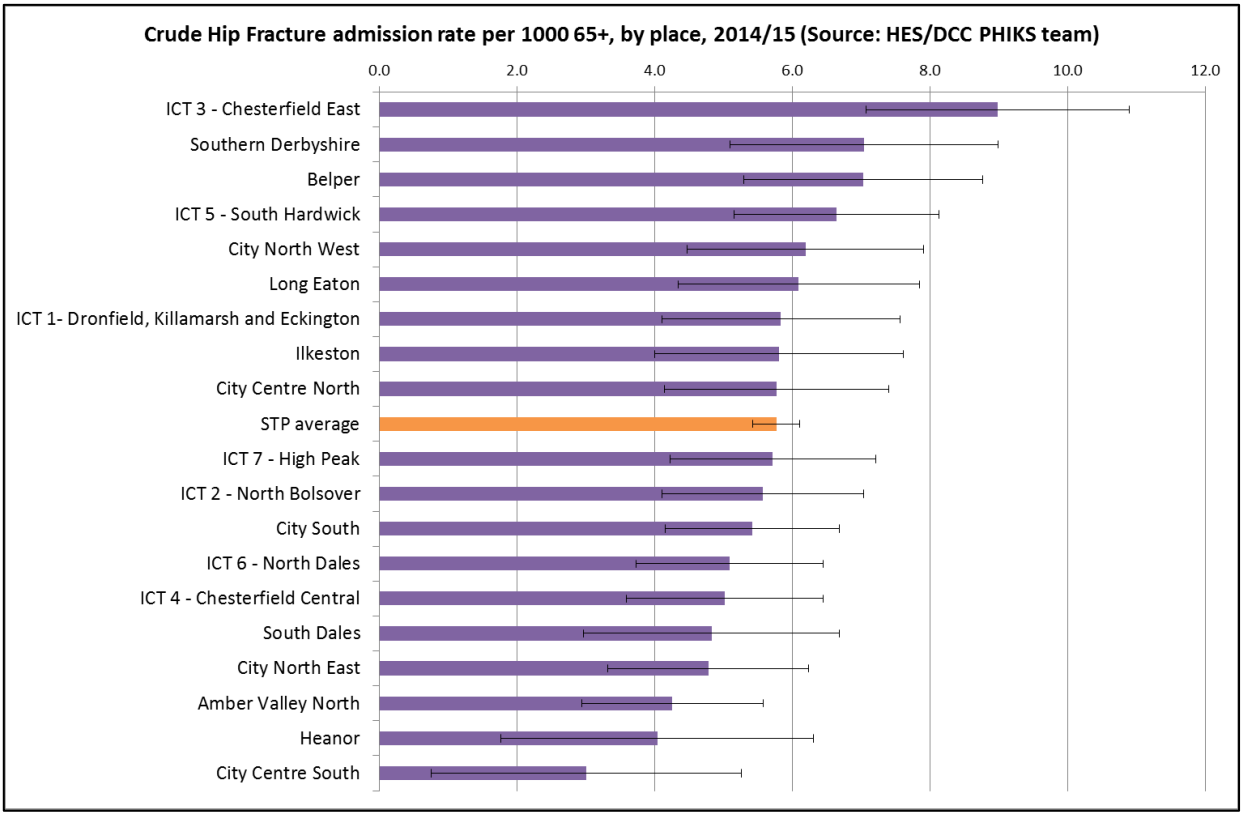


Figure 9: *Crude hip fracture rate 65+, by place, 2014/15 (Source: HES/DCC PHIKS team)*



The following map, Figure 10 (extracted from local health) of CCG level hip fractures shows a similar picture, with lower than average admission ratio in southern Derbyshire, similar to England in Erewash and North Derbyshire and worse than England in Hardwick CCG.

Figure 10: *Emergency hospital admissions for hip fractures, standardised admission ratio 2010/11- 2014/15, clinical commissioning groups (2015) (Source: PHE local health, 2016)*

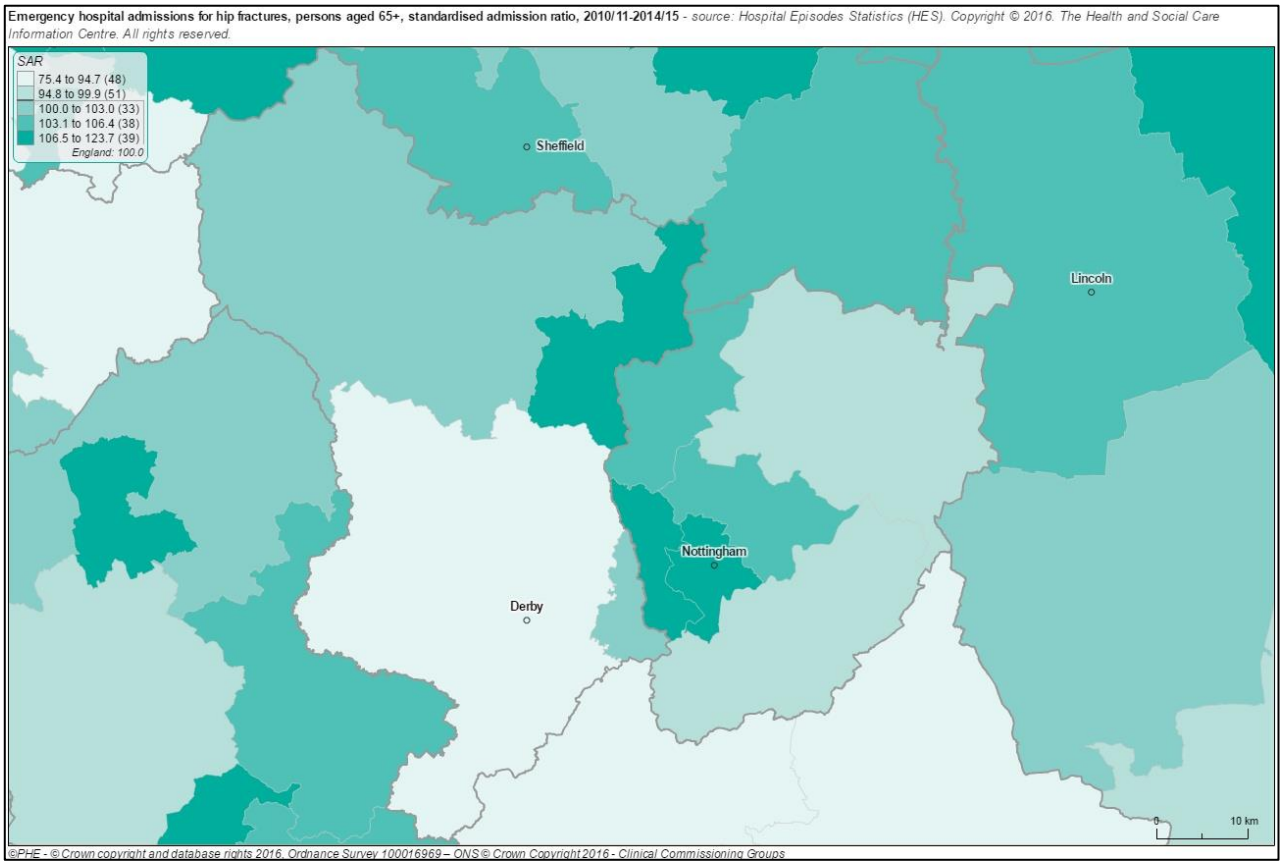
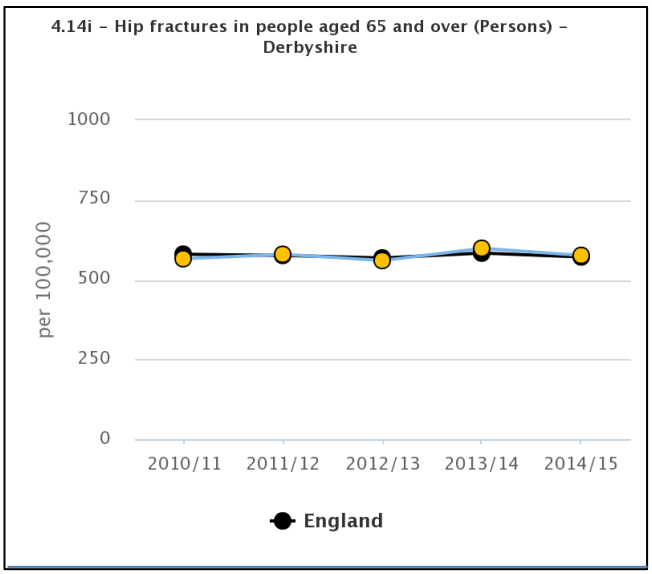
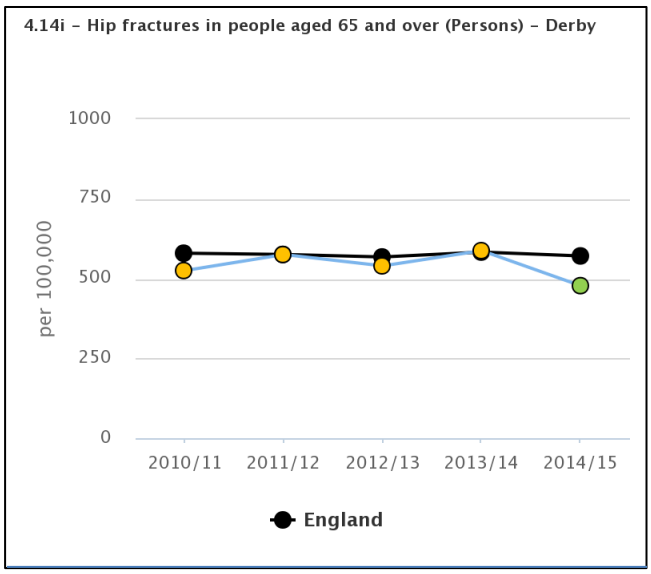
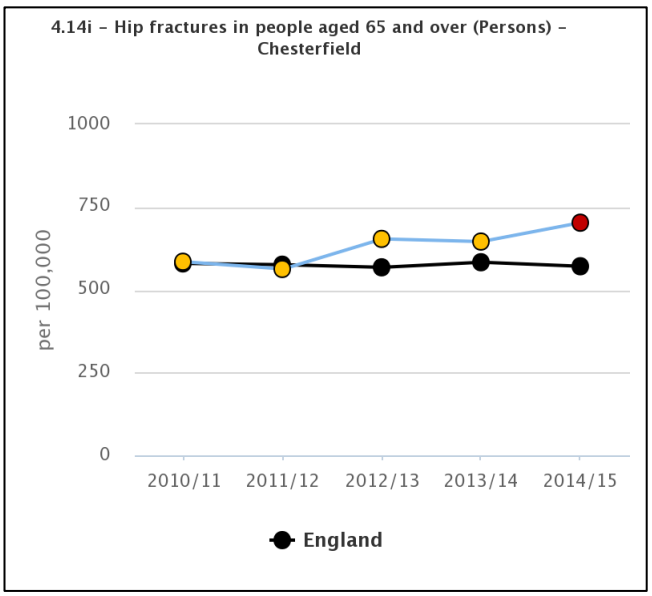
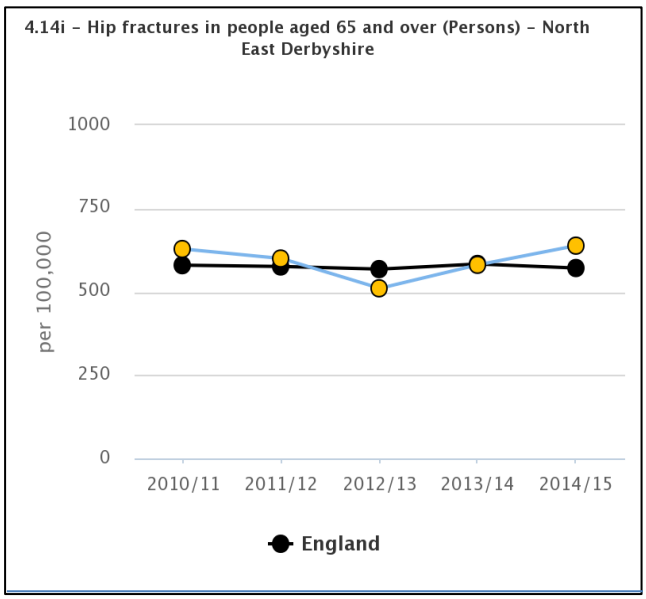


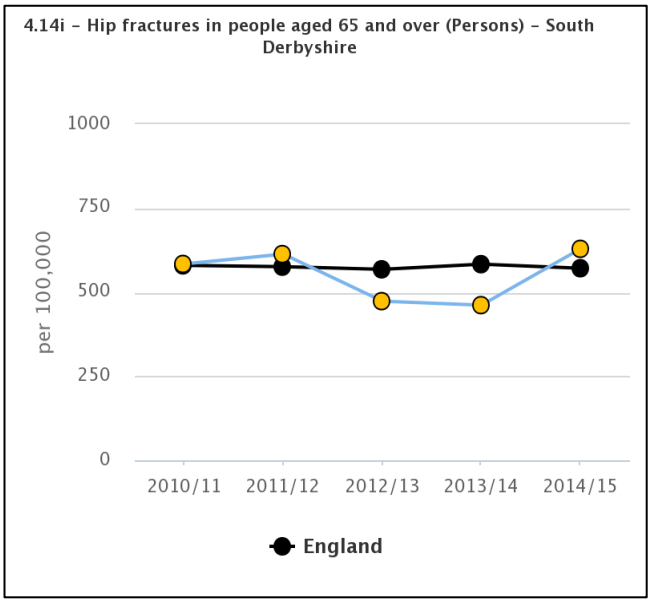
Figure 11: *Trends in Hip fractures (Source: PHOF[1])*











2.17 Discharge from hospital

Discharged to usual place of residence

Out of the 1,098 hip fractures, 673 were discharged to usual place of residence (Source: *SUS/GEM*, 2015/16 data, unpublished).

Death

There were 119 deaths with underlying cause falls (ICD10 W00-W19) in 2015, to people aged 65+ resident in Derbyshire or Derby City. (Source: ONS[2]/ PH intelligence team)

Discharge to long term residential care

Derbyshire spend on residential/nursing care for over 65s was over £52 million in 2014/15. There are 4,041 beds available in care homes with nursing (Source: CQC, 2014/15, Derbyshire spend on residential/nursing care for over 65s). This does not include Derby city, or self-funders. Out of the 1,098 hip fractures 57 were recorded as discharged to a care home, 673 to usual place of residence, 57 died (Source: SUS/GEM, unpublished).

Chapter 3 – Local Performance

3.1 Targets and performance

Given the population level impact and importance of falls, this is reflected in there being a number of falls indicators in PHOF[1], and also the number of risk factors for falls in the PHE fingertips adult social care profile tool. These are presented in the appendices 3-7 of this report, for Derbyshire (and constituent districts where available) and Derby City, using their 'CIPFA' comparators (local authorities with similar socio demographic characteristics).

Summary data from PHOF 2014/15[1] for falls indicators is presented below:

Table 18 *- PHOF Indicator 2.24 – Age/Sex Standardised Rate of emergency hospital admissions for injuries due to falls per 100,000 population (2014/15 data)* [1]

Group	England	Derbyshire	RAG Status
65+ Person	2125	2189	Amber
65+ Male	1740	1755	Amber
65+ Female	2509	2622	Red
65-79 Person	1012	991	Amber
65-79 Male	826	769	Amber
65-79 Female	1198	1212	Amber
80+ Person	5351	5663	Red
80+ Male	4391	4616	Amber
80+ Female	6312	6711	Red

Table 19 *- PHOF Indicator 4.14i - Age-sex standardised rate of emergency admissions for fractured neck of femur per 100,000 population (2014/15 data)* [1]

Group	England	Derbyshire	RAG Status
65+ Person	571	576	Amber
65+ Male	425	407	Amber
65+ Female	718	745	Amber
65-79 Person	239	245	Amber
65-79 Male	167	157	Amber
65-79 Female	312	333	Amber
80+ Person	1535	1537	Amber
80+ Male	1174	1135	Amber
80+ Female	1895	1939	Amber

Some headlines on the risk factors for falls for Derbyshire based on the 14/15 data (excluding Derby) are presented below:

- Demographically Derbyshire (excluding Derby) is similar to its CIPFA comparators which is to be expected given how CIPFA groupings are defined. The vast majority of the group have higher than England %'s of older people across 65-74, 75-84 and 84+.
- Derbyshire has higher than average prevalence of dementia, and this is reflected generally across the comparators, again unsurprising given their older populations.
- Derbyshire has higher than average prevalence of learning disabilities, and visual impairment. Some care must be taken in interpretation as this could reflect better diagnosis rather than true prevalence. However prevalence is quite mixed across the comparators, so it looks like prevalence is potentially higher, despite similar demographics.

- Derbyshire has a lower rate of people supported through the year than England and some of the other comparators (although many are also lower) which could be an indicator of unmet need
- Derbyshire has similar levels of social isolation to England and most of the comparators
- Derbyshire has higher than average permanent admissions to care homes, and this is quite mixed across the comparators indicating that need is potentially higher despite similar demographics
- Derbyshire has higher levels of older people receiving attendance allowance and Disability living allowance. This could indicate higher prevalence of disability, or good relative uptake of benefits.

Some headlines for Derby City are presented below:

- Derby has lower than average levels of people aged 65-74 and 75-84, and similar to average levels of people 85+.
- Prevalence of dementia is similar to England, quite mixed across the group. This could reflect variable diagnosis rates.
- Derby has higher prevalence of visual impairment.
- Derby has higher rates of older people supported, which may help to reduce falls.
- Derby may have higher prevalence of disability, as indicated by attendance allowance and DLA uptake.
- Derby has similar to average admissions to care homes, and social isolation

3.2 Falls headlines:

Derbyshire has similar or worse admissions from falls and fractures across the range of indicators, compared to England and the comparator group.

Derby City performs similar or worse on injurious falls, and similar or better on hip fractures. They are somewhere of the middle of the group on this.

Quilts for Derby City and Derbyshire are presented in the appendices of this report.

Chapter 4 – Overview of Current Services

A wide range of services are provided across the City and County that aim to prevent falls and respond to people who have fallen.

4.1 Falls Prevention Services

Falls Prevention covers the preventative measures that can be put in place to avoid and mitigate the impact of falls on people primarily those aged over 65. Many of these will align with the wider topic of frailty, which encompasses the problem of falls alongside a number of other age related health and social care issues but for clarity the focus of this report remains on falls. These services are provided by a wide range of organisations.

Housing

District Councils and the City Council Environmental Health Teams provide advice and undertake enforcement of private sector housing conditions to ensure they are free from hazards to health. These hazards include falls on stairs, from high levels, trips and the risk of falls associated with cold. Disabled facilities grants are delivered by Environmental Health in partnership with Derbyshire County Council Disability Design Team and Occupational Therapists. District Councils and the County/City Councils provide affordable warmth schemes, reducing the risk of falls associated with cold homes.

Derbyshire Handyvan Service provides practical support to help older and vulnerable people to live independently in their own homes e.g. securing loose carpets, fitting handrails, changing light bulbs etc. all of which reduce the risk of falls in the home.

Social housing organisations (District/City Councils, Other Housing Organisations) provide accommodation and monitoring plus floating support for older people to support them to live independently at home.

Derbyshire Fire and Rescue Service undertake safe and well checks to around 8000 homes across the City and County. The service principally focuses upon fire hazards but also provides advice on other hazards and has recently begun to undertake falls risk assessments.

Footcare

Tootsies foot care provides affordable and accessible basic foot care for people aged 50+ who do not meet the eligibility criteria for NHS Podiatry but who have difficulty in caring for their feet effectively. Countywide service supporting around 700 older people.

Strength and Balance Exercise

Derbyshire County Council Public Health has commissioned Age UK to deliver evidence based falls prevention exercise groups across the County (Strictly No Falling (SNF)). There are around 130 classes that provide chair based strength and balance, Tai Chi, Otago and PSI training to around 1500 older people. The service also seeks to engage with care homes. Individuals can self-refer or be referred by their GP. Transport assistance is available to enable people to access classes. Most classes require participants to pay a small charge.

4.2 Falls response services

Derbyshire CC (Adult Social Care) commission the Falls Alert Service (FAST) that enables appropriate telecare equipment to be deployed including lifeline and pendants, bed occupancy sensor, automatic lamp activation, and waist-worn fall detector, which is all provided free subject to a £2.50 per week monitoring fee. Any alerts raised will be received at the local 24 hour monitoring centre who can then take appropriate action including notification of GP or alert a response team (Housing Wardens) to assist people. A similar service operates in Derby – Derby Carelink.

FIRST St John Ambulance - available to residents in High Peak and North Dales localities. Service takes referrals from EMAS for patients who have fallen but are manageable at home; as well as referrals from GPs to provide immediate support to recent fallers or patients at risk of fall. Service provides immediate care and immediate interventions to reduce fall/ repeat fall as well as onward referral to a range of services including Integrated Care Service. Service works closely with Primary Care to ensure appropriate services within the community.

4.3 Specialist Falls Service/ Community Rehabilitation Team (DCHS)

DCHS are commissioned via a block contract to provide a specialist falls service across the County. The service undertakes multifactorial risk assessments of people who have usually had a fall or been identified as being at higher risk of a fall and includes clinical assessment of an individual's balance and physical problems, cognitive and mental health factors, diet and nutrition, environmental assessments, equipment provision, advice, strength and balance training. The service refers onto to other services such as SNF etc. as necessary

The services sees around 5000- 6000 people per annum who are usually referred via their GP but also referred from other services such as EMAS, hospitals etc.

4.4 Acute Hospital Services

Both Chesterfield Royal and Derby Royal hospitals provide services that deal with more complex cases involving people who have fallen and to identify people at higher risk of hip fractures. Services include:

Fracture Liaison

Fracture liaison services which aim identify patients over 50 years of age who have suffered a fragility fracture after minimal trauma (usually a fall) an assessment of their osteoporosis risk and appropriate management.

Ortho-Geriatric Services

Ortho-geriatric services for more complex cases of people who have fallen or identified as being at higher risk of falling and have other problems with continence, mobility, fear of falling and confidence issues. The service is part of a wider frailty service for older people and includes comprehensive geriatric assessments (CGA) and other services as appropriate such as physiotherapy, occupational therapist, dietician, vision etc. A personalised care plan will be put together and ongoing treatment and support provided

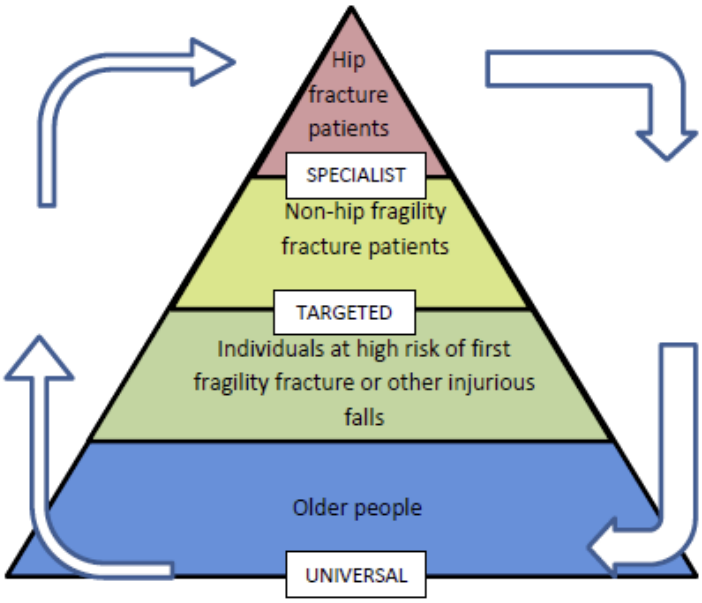
5.1 Introduction

Substantial evidence, numerous standards and current guidelines exist to reduce the number of falls and their impact. In 2009, the Department of Health set out four key areas for intervention that commissioners working collaboratively across health and social care should consider[13]:

Objective 1: Improve outcomes and efficiency of care after hip fracture
Objective 2: Fracture Liaison service to respond to first fracture and prevent the second
Objective 3: Early intervention to restore independence through falls care pathway linking acute and urgent services to secondary falls prevention
Objective 4: Prevent frailty, preserve bone health and reduce accidents

These objectives are represented by the pyramid diagram shown in Figure 12. Services high in the pyramid i.e. hip fracture care have a sizeable impact on health and social care budgets. Targeting early preventative measures at the largest proportion of adults in the bottom level and support to move people to the 'universal level' can potentially prevent these people from ever reaching the higher tiers.

Figure 12: *A Systematic Approach to Falls and Fracture Prevention. Source: DH*[13]



5.2 Hip Fractures

A Best Practice Tariff was introduced in 2010/11 to promote best practice in the care and secondary prevention of fragility hip fracture in line with the clinical guidelines and quality standards from NICE[26-27] and the web-based National Hip Fracture Database. In particular key clinical characteristics of best practice are:

- Prompt surgery (less than 36 hrs from admission)
- Appropriate involvement of geriatric medicine along the care pathway
- Fracture prevention assessments and tailored interventions (falls multi factorial assessment and bone health)

5.3 Non Hip Fragility Fractures

The most effective way of identifying people at risk of hip fractures, and organising appropriate treatment, is to focus on two particular groups:

● patients with new fragility fractures
● patients who have fractured in the past or are at risk of osteoporotic fractures in the future.

Identifying patients at higher risk is advocated by the British Orthopaedic Association[14], DH[13] and NICE[6]. For those patients with a new fragility fracture this can be done by a Fracture Liaison Service.

For patients who have fractured in the past or are at risk of osteoporotic fractures, a primary care-based fracture liaison programme can undertake proactive case finding of unassessed fragility fracture and other high-risk patients across a much wider group.

Effective secondary prevention of falls must become an integral part of the approach for non hip fragility fractures including multi factorial falls assessment and appropriate interventions.

5.4 Identify people at risk of Injurious Falls (Inc. First Fragility Facture)

People in the Community
Key elements for success advocated by the DH[13] and NICE[6] include:

- Falls care pathway
- Falls Coordinator ensures coordination and integration of hospital and community efforts and promotes falls management and prevention to other agencies.
- Healthcare professionals routinely asking whether an older person has fallen in the past year
- A multi-factorial falls risk assessment delivered by a specialist falls team
- A multi-factorial targeted intervention including: strength and balance training; home hazard and safety assessment; vision assessment and referral and medication review.
- Encouraging the participation of older people in falls prevention programmes
- Providing education and information to health/social care professionals and people at risk on the risks of falls and how to prevent them

People in Hospital

RCP estimate that a comprehensive falls reduction programme in hospitals can reduce falls by 20-30%[24]. NICE CG 161[6] identifies the following measures for reducing inpatients identified as being at risk (all patients aged 65 and over and patients aged 50 to 64 years who are judged by a clinician to be at higher risk) of falling in a hospital:

- Ensure that aspects of the inpatient environment (including flooring, lighting, furniture and fittings such as hand holds) that could affect patients' risk of falling are systematically identified and addressed.
- Consider a multifactorial assessment and a multifactorial intervention ensuring that any multifactorial assessment identifies the patient's individual risk factors for falling in hospital that can be treated, improved or managed during their expected stay.
- Provide information to the patient and their family on falls and how to reduce the risk

People in a care home

Evidence on what interventions are effective in care homes is less clear but best practice (DH[13], Care Inspectorate/NHS Scotland[28]) is that the following approach should be taken:

Management: policies and practices

- All residents should receive a multifactorial risk assessment on admission and any individual risks should be identified and addressed. A recent Cochrane review[29] concluded evidence for multifactorial interventions in care facilities suggests possible benefits, but this was inconclusive.
- All staff should receive fall awareness training
- All falls should be recorded and the data regularly audited to identify areas for self-improvement
- Work in partnership with local Health Services and Local Authorities as an integral part of a multi – agency care pathway

Support for residents

- Exercise and activity that incorporate strength and balance training can reduce the risk of falls but a Cochrane review[29] concluded that there is no evidence overall that exercise reduces falls in care facilities, but may be more effective in less frail residents.
- Provision of Vitamin D
- Ensuring the provision and use of suitable walking aids
- Vision assessments
- Foot care and footwear
- Medication is appropriate
- Information for residents on how to reduce their risk of falls

Improving the environment

- Ensure that aspects of the care home environment (including flooring, lighting, furniture and fittings such as hand holds) that could affect resident's risk of falling are systematically identified and addressed

5.5 Prevent frailty, preserve bone health and reduce accidents – Primary Falls Prevention

The emphasis should be on self-care, health education and promotion to enable active ageing and minimise the risk of falls and fragility fractures with a particular focus on:

- Informing and educating older people about active aging including that many falls are preventable by simple measures
- Older adults should aim to be active and include strength and balance interventions e.g. Tai Chi
- Ensuring the home environment is safe
- Calcium and vitamin D provision for housebound people (PHE[30])

Chapter 6 – Economic Modelling

Economic modelling of different scenarios for the falls pathway has been undertaken as shown in the following pages:

Scenario	Description	Extra Costs	Savings	Net cost or saving	Assumptions
1	Screen all 65+ Assume 35,000 will need MFRA (because of one or more of: First fall Fear of falling Reduced Gait and balance Expanded falls recovery service will divert non-conveyed EMAS activity/green 4 calls Better ambulatory care at hospital will reduce avoidable admissions	35,000x MFRA @£22.5 (788k) 17,525 S&B @£90(1.6 m) 3,000 Env. @£500(1.5m) 12,000 MUR @28 (336k) Falls recovery expansion 189k Ambulatory care 100k **Total £4.5m**	Assume falls would reduce from 70,100 to 59,950 (29% reduction in those receiving intervention) saving £620 per fall, 10% reduction in hip fractures saving social care 500k, and reduced EMAS activity (633k) and hospital admissions (977k) **Total £8.5m**	**Could save £4.0m**	Costs of screening all 65+ not added Vision costs not included Assumes can still achieve 29% reduction despite only doing S&B with half of those that have an MFRA, and only making adaptions in 3,000 homes Assumes possible to do 35,000 MFRA, and these are the 'right' people Assumes it is possible to expand falls recovery and divert EMAS activity Cost of expansion of falls recovery and ambulatory care may be an under estimate Assumes ambulatory care does reduce admissions

Scenario	Description	Extra Costs	Savings	Net cost or saving	Assumptions
1b - minus environmental adaptions	Screen all 65+ Assume 35,000 will need MFRA (because of one or more of: First fall Fear of falling Reduced Gait and balance Do not carry out environmental adaptions Expanded falls recovery service will divert non-conveyed EMAS activity/green 4 calls Better ambulatory care at hospital will reduce avoidable admissions	35,000x MFRA @£22.5 (788k) 17,525 S&B @£90(1.6 m) 12,000 MUR @28 (336k) Falls recovery expansion 189k Ambulatory care 100k **Total £2.7m**	Assume falls would reduce from 70,100 to 62,575 (25% reduction in those receiving intervention) saving £620 per fall, and 10% reduction in hip fractures saving social care 500k, and reduced EMAS activity (633k) and hospital admissions (977k) **Total £6.8m**	**Could save £4.1m**	Costs of screening all 65+ not added Vision costs not included Impact of not doing the environmental adaptions has been assumed to only reduce falls by 25%, it was 29% if doing all 4 things. It may have a greater contribution therefore if this component is missed out, the falls reduction may be less. Assumes possible to do 35,000 MFRA, and these are the ‘right’ people Assumes it is possible to expand falls recovery and divert EMAS activity Cost of expansion of falls recovery and ambulatory care may be an under estimate Assumes ambulatory care does reduce admissions

Scenario	Description	Extra Costs	Savings	Net cost or saving	Assumptions
2	Screen all 65+ Then carry out MFRA on all 75+ And those aged 65-74 with one or more of: -First fall -Fear of falling -Reduced Gait and balance S&B to all 75+ is a key feature of this scenario Expanded falls recovery service will divert non-conveyed EMAS activity/green 4 calls Better ambulatory care at hospital will reduce avoidable admissions	105,500 MFRA @22.5 (£2.4m) 105,500 S&B @£90 (£9.5m) 3,000 Env (£1.5m) 26,250 MUR (£591k) Falls recovery expansion 189k Ambulatory care 100k **Total £14.2m**	Assume falls would reduce from 70,100 to 49,772 saving £620 per fall and 10% reduction in hip fractures saving social care 500k, reduced EMAS activity (633k) and hospital admissions (977k) **Total £14.8m**	**Could save 589k**	Costs of screening all 65+ not added Vision costs not included Assumes possible to do 105,500 MFRA, and these are the 'right' people Cost of expansion of falls recovery and ambulatory care may be an under estimate Assumes it is possible to expand falls recovery and divert EMAS activity Assumes ambulatory care does reduce admissions

Scenario	Description	Extra Costs	Savings	Net cost or saving	Assumptions
3	Screen all 75+ Then carry out MFRA on those with one or more of: -First fall -Fear of falling -Reduced Gait and balance Expanded falls recovery service will divert non-conveyed EMAS activity/green 4 calls Better ambulatory care at hospital will reduce avoidable admissions	40,490 MFRA @22.5 (911k) 20,245 S&B @90 (£1.8m) 3,000 Env @500 (£1.5m) 13,000 MUR @28 (364k) Falls recovery expansion 189k Ambulatory care 100k **Total £4.9m**	Assume falls would reduce from 70,100 to 58,359 saving £620 per fall and 10% reduction in hip fractures saving social care 500k, reduced EMAS activity (633k) and hospital admissions (977k) **Total £7.8m**	**Could save 2.9m**	Costs of screening all 65+ not added Vision costs not included Assumes possible to do 40,490 MFRA, and these are the 'right' people Assumes falls still reduced by 29% despite only doing S&B with 20k and env adaptions with 3k Cost of expansion of falls recovery and ambulatory care may be an under estimate Assumes it is possible to expand falls recovery and divert EMAS activity Assumes ambulatory care does reduce admissions

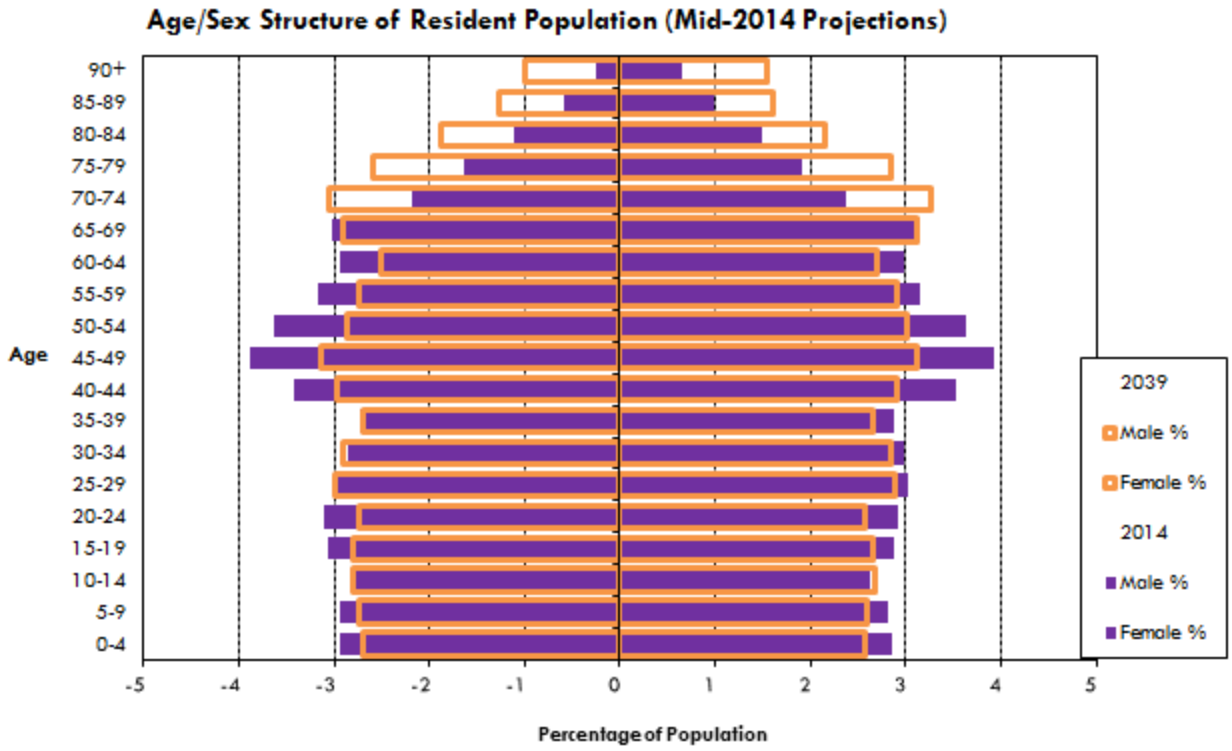
Scenario	Description	Extra Costs	Savings	Net cost or saving	Assumptions
4	Perfect world Able to find all the 70,100 fallers, then do MFRA with them, and refer to appropriate interventions Assume only 25% would do S&B (as impractical/unaffordable to pay for 70k people), and we are able to target those it will have the impact with (moderate risk) and able to target 6000 adaptions to those at 'high risk' in order to realise maximum reduction in falls Expanded falls recovery service will divert non-conveyed EMAS activity/green 4 calls Better ambulatory care at hospital will reduce avoidable admissions	70,100 MFRA @22.50 (£1.58m) 17,525 S&B @90 (£1.6m) 3,000 Env @500 (£1.5m) 17,525 MUR @28 (491k) Falls recovery expansion (189k) Ambulatory care £100k **Total £5.4m**	Falls reduce 29% from 70,100 to 49,771 @620 per fall, saving 12.6m and 10% reduction in hip fractures saving social care 500k and expanded falls recovery service leading to reduction in non-conveyed EMAS call outs (saving 633k), as well as ambulatory care saving 624 admissions (977k saved on avoidable admissions) **Total £14.8m**	**Could save £9.3m** **Could save £10.8m if didn't do environmental adaptions but still achieved 29% reduction**	Assumes can achieve 29% reduction in 70,100 falls to 49,771, with only ¼ of cohort attending S&B- with good targeting Vision costs not included Costs of finding the 70,100 not added Assumes possible to do 70,100 MFRA, and these are the 'right' people Cost of expansion of falls recovery and ambulatory care may be an under estimate Assumes it is possible to expand falls recovery and divert EMAS activity Assumes ambulatory care does reduce admissions

Chapter 7 Impact of Demographic Changes

7.1 Population Growth

The population of Derbyshire (including City) is projected to increase from 203,592 (people aged 65+) to 268,027 by 2029 (Source: ONS 2014 based sub national population projections[2]). Clearly this will have a considerable impact on the number of falls occurring in this age group. This is shown below in Figure 6.

Figure 13: *2014 based population projections for Derbyshire/Derby City, projected to 2039. (Source: ONS/DCC PHIKS team)*



Chapter 8 – Local Views

A falls conference was held in September 2016 that included representatives from a wide range of organisations including CCG's, DCHS, Age UK Derby and Derbyshire, Adult Care, GP's, Public Health, Voluntary Sector and members of the public. Workshops were held and a number of gaps/issues for improvement were identified including:

- Absence of an agreed pathway for the identification and referral of people at risk of falls
- Need to improve the knowledge of health and social care staff on falls
- Collation of data/information to demonstrate value/effectiveness of services provided
- Improving links between services to enable data sharing and more efficient referrals
- Inconsistency in the provision of services across the county
- Need to improve awareness amongst older people/families/carers of falls awareness and prevention

Chapter 9 – Knowledge gaps

Nationally, PHE[30] recently identified strength and balance programmes, also known as postural stability programmes, are one of the key interventions shown to reduce the rate of falls. Evidence based programmes include the Otago Exercise Programme developed at the University of Otago in New Zealand and FaME – Falls Management Exercise programme. A recent audit of falls prevention services carried out by PHE found that while many areas had documented requirements for the delivery of these programmes, little data on activity was being collected. In order to assess the clinical and cost effectiveness of local services, falls leads and commissioners need to collect data on the following areas:

- Where do referrals to the service come from i.e. what population sub-groups?
- Are patients from local fracture and injury services being referred on to these programmes?
- What proportion of referrals start their programme?
- What proportion of referrals complete (most of) the programme?

If possible, follow-up data on health status of patients who have completed these programmes should be collected.

There are a limited number of interventions shown to reduce falls – robust data collection will help us do this more effectively.

Also seen locally- the following gaps have been identified:

- Strictly No Falling (SNF) needs better evaluation- this is now planned
- DCHS data- we do not have full numbers of people referred to specialist falls service, and of those we do not know how many have received MFRA and appropriate interventions.
- Information about performance of fracture liaison services

Chapter 10 - Needs and service gaps

- Awareness: Older people need to have improved awareness of the risks of falls and that many are preventable. We also need to raise awareness amongst health and social care professional.

- Prevention activities: capacity and uptake of activities (e.g. strength and balance exercise classes) to reduce the primary risk of falls is limited.

- Falls pathway: Current absence of an integrated falls pathway across Derby City and Derbyshire to enable professionals to understand their role, refer to relevant falls prevention/ response services and coordinate on-going care.

- Risk identification: The existing processes for identifying those at higher risk of falling are limited; resulting in low referral numbers to primary and secondary prevention initiatives and services, high levels of unmet need and ultimately a high number of (preventable) falls in over 65s.

- Capacity: The capacity of existing community falls services is limited compared to potential demand.

- Improving outcomes/ cost savings: Potential to improve outcomes and achieve cost savings to the system:

  - 20% of Ambulance call outs coded as less serious (Green 4) may not need EMAS and could be attended by other providers e.g. DCC Falls Recovery Service.

  - 13% of admissions were likely to have been avoidable either because injuries were superficial. Emerging evidence from a pilot in Leicestershire suggests that further admissions could be avoided if more effective measures were in place to assess and provide support to fallers who have minor injuries.

- Data collection: Limited data on the impact of falls services to enable effective evaluation of the current picture and assess areas of inequity/inequality.

Chapter 11 - Recommendations for consideration by commissioners and partners

- Across Derby and Derbyshire a place based approach should be established to reduce the number of hospital admissions due to falls, with a particular focus on the 3 Districts (Chesterfield, High Peak and South Derbyshire) with the highest rate of injurious falls.

- Develop an integrated falls pathway for Derby and Derbyshire to enable the identification and rapid referral of people identified at higher risk of falls to appropriate falls prevention services. All health/social care staff and other professionals who regularly work with older people should be made aware of the pathway and provided with relevant training/support to ensure its successful implementation.

- Increase capacity and uptake of community based primary falls prevention activities e.g. strength and balance training, particularly within the Derby City area.

- Review the current arrangements for EMAS responding to fallers particularly those coded as 'Green' to assess the opportunities to deliver a Derbyshire wide service that is more cost effective and responsive.

- A review should be undertaken of DCHS 'falls services' currently commissioned to ensure that the service is providing a consistent approach across the County, has sufficient capacity to deal with 'high risk fallers', has better collaboration with primary falls prevention services such as Strictly No Falls and can provide data on patient outcomes.

- Clinical audits should be carried out in primary care to assess whether older people living in the community are asked about falls and are referred for multifactorial assessments and interventions in line with current NICE Guidance. Similar audits should be carried out for those attending hospitals due to an injurious falls.

- Establish a single site information portal for falls providing a universally available pool of knowledge, guidance, awareness raising and training materials/e-learning to act as the main local resource/reference point, both for direct access by the public (individuals and their families/carers) and for use by hospital, community health, social care and third sector staff.

- Review and agree core shared data set requirements and data collection/reporting requirements across the system, to facilitate more effective evaluation of existing falls services and the impact of falls across the health and social care system.

- A MECC approach should be taken to raising awareness amongst older people and carers that falls are not an inevitable part of ageing, encourage active ageing and helping people to reduce their risk of falls.

- A review of the approach taken by those CIPFA neighbours of Derbyshire (such as North Yorkshire) that have better performance in preventing injurious falls should be undertaken to identify what lessons could be learnt.

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Appendix A: *Modelled data for Derby City and Derbyshire, using 2015 mid-year estimates and prevalence estimates from 'Falls and fractures: effective interventions in health and social care', DH 2009*

	Amber Valley	Bolsover	Chesterfield	Derby	Derbyshire Dales	Erewash	High Peak	North East Derbyshire	South Derbyshire	Derbyshire (inc. Derby)	Derbyshire (exc. Derby)
All ages	**124,069**	**77,780**	**104,407**	**254,251**	**71,145**	**114,510**	**91,496**	**99,639**	**99,319**	**1,036,616**	**782,365**
65+	**26,401**	**15,211**	**21,185**	**40,806**	**18,238**	**22,464**	**18,144**	**23,660**	**17,411**	**203,520**	**162,714**
Will fall	9,094	5,239	7,297	14,055	6,282	7,738	6,250	8,150	5,997	70,101	56046
More than once	3,931	2,265	3,154	6,076	2,715	3,345	2,701	3,523	2,592	30,302	24226
Will Attend A&E	1,291	744	1,036	1,995	892	1,098	887	1,157	851	9,950	7955
Call ambulance	1,291	744	1,036	1,995	892	1,098	887	1,157	851	9,950	7955
Will suffer a fracture	645	372	518	997	446	549	444	578	426	4,975	3977
of which will be hip fractures	211	122	169	326	146	180	145	189	139	1,628	1302
Deaths within 12mths of hip fractures	63	37	51	98	44	54	44	57	42	488	391
Should receive a falls assessment	4,136	2,593	3,480	8,475	2,372	3,817	3,050	3,321	3,311	34,554	26079
Requiring a simple gait & balance check	2,068	1,296	1,740	4,238	1,186	1,909	1,525	1,661	1,655	17,277	13039
Post-Menopausal women	22,746	14,260	19,141	46,613	13,043	20,994	16,774	18,267	18,208	190,046	143434
Post-menopausal women with undiagnosed osteoporosis	7,196	4,511	1,229	14747	4126	6642	5307	5779	5761	60124	45377
Post-menopausal women with a previous fracture of any kind	2,854	1,789	2,401	5,848	1,636	2,634	2,104	2,292	2,284	23,842	17994
Post-menopausal women with new fracture each year	372	233	313	763	213	344	274	299	298	3,110	2347

Appendix B: *Modelled data for the 4 CCGs, using April 2016 registered CCG populations (NHS Digital) and prevalence estimates from 'Falls and fractures: effective interventions in health and social care', DH 2009*

	Erewash	Hardwick	North	Southern	Total for 4 CCGs
All ages	97,361	102,691	291,518	545,274	**1,036,844**
65+	18,791	21,384	64,432	97,268	**201,875**
Will fall	6,472	7,366	22,193	33,503	**69,535**
More than once	2,798	3,184	9,593	14,482	**30,057**
Will Attend A&E	919	1,045	3,150	4,755	**9,869**
Call ambulance	919	1,045	3,150	4,755	**9,869**
Will suffer a fracture	459	523	1,575	2,378	**4,935**
of which will be hip fractures	150	171	515	778	**1,615**
Deaths within 12mths of hip fractures	45	51	155	233	**485**
Should receive a falls assessment	3,245	3,423	9,717	18,176	**34,561**
Requiring a simple gait & balance check	1,623	1,712	4,859	9,088	**17,281**
Post-Menopausal women	17,850	18,827	53,445	99,967	**190,088**
Post-menopausal women with undiagnosed osteoporosis	5,647	5,956	16,908	31,626	**60,137**
Post-menopausal women with a previous fracture of any kind	2,239	2,362	6,705	12,541	**23,847**
Post-menopausal women with new fracture each year	292	308	875	1,636	**3,111**

Appendix C: *Modelled data for the 19 Derbyshire STP 'places', using April 2016 registered CCG populations (NHS Digital) and prevalence estimates from 'Falls and fractures: effective interventions in health and social care', DH 2009*

	Amber Valley North	Belper	City Centre North	City Centre South	City North East	City North West	City South	Heanor	Killamarsh and Eckington	ICT 2 - North Bolsover	ICT 4 - Chesterfield East	ICT 3 - Chesterfield Central	ICT 5 - South Hardwick	ICT 6 - North Dales	ICT 7 - High Peak	Ilkeston	Long Eaton	South Dales	Southern Derbyshire	STP average
All ages	57,329	50,513	70,896	41,757	64,178	49,168	101,858	25,483	41,115	65,065	55,882	57,757	65,200	49,201	59,989	46,252	51,109	30,423	53,669	**1,036,844**
65+	12,429	11,229	10,726	3,980	11,289	10,331	16,050	4,698	9,759	12,558	11,457	12,140	14,140	13,350	12,412	8,952	9,839	7,452	9,084	**201,875**
Will fall	4,281	3,868	3,695	1,371	3,888	3,558	5,528	1,618	3,361	4,326	3,946	4,182	4,870	4,598	4,275	3,083	3,389	2,567	3,129	**69,535**
More than once	1,851	1,672	1,597	593	1,681	1,538	2,390	699	1,453	1,870	1,706	1,808	2,105	1,988	1,848	1,333	1,465	1,110	1,353	**30,057**
Will Attend A&E	608	549	524	195	552	505	785	230	477	614	560	594	691	653	607	438	481	364	444	**9,869**
Call ambulance	608	549	524	195	552	505	785	230	477	614	560	594	691	653	607	438	481	364	444	**9,869**
Will suffer a fracture	304	274	262	97	276	253	392	115	239	307	280	297	346	326	303	219	241	182	222	**4,935**
of which will be hip fractures	99	90	86	32	90	83	128	38	78	100	92	97	113	107	99	72	79	60	73	**1,615**
Deaths within 12mths of hip fractures	30	27	26	10	27	25	39	11	23	30	27	29	34	32	30	21	24	18	22	**485**
Should receive a falls assessment	1,911	1,684	2,363	1,392	2,139	1,639	3,395	849	1,371	2,169	1,863	1,925	2,173	1,640	2,000	1,542	1,704	1,014	1,789	**34,561**
Requiring a simple gait & balance check	955	842	1,182	696	1,070	819	1,698	425	685	1,084	931	963	1,087	820	1,000	771	852	507	894	**17,281**

	Amber Valley North	Belper	City Centre North	City Centre South	City North East	City North West	City South	Heanor	ICT 1- Dronfield,	ICT 2 - North Bolsover	ICT 3 - Chesterfield	ICT 4 - Chesterfield	ICT 5 - South Hardwick	ICT 6 - North Dales	ICT 7 - High Peak	Ilkeston	Long Eaton	South Dales	Southern Derbyshire	STP average
Post Menopausal women	10,510	9,261	12,998	7,655	11,766	9,014	18,674	4,672	7,538	11,929	10,245	10,589	11,953	9,020	10,998	8,480	9,370	5,578	9,839	**190,088**
Post-menopausal women with undiagnosed osteoporosis	3,325	2,930	4,112	2,422	3,722	2,852	5,908	1,478	2,385	3,774	3,241	3,350	3,782	2,854	3,479	2,683	2,964	1,765	3,113	**60,137**
Post-menopausal women with a previous fracture of any kind	1,319	1,162	1,631	960	1,476	1,131	2,343	586	946	1,496	1,285	1,328	1,500	1,132	1,380	1,064	1,176	700	1,234	**23,847**
Post-menopausal women with new fracture each year	172	152	213	125	193	148	306	76	123	195	168	173	196	148	180	139	153	91	161	**3,111**

***Appendix D**- Quilts Derbyshire and its CIPFA nearest neighbours- Risk factors*

	Indicator	Period	England	Derbyshire	Nottinghamshire	Staffordshire	Worcestershire	Suffolk	Cumbria	Lincolnshire	Warwickshire	Norfolk	Lancashire	Gloucestershire	Northamptonshire	Somerset	Leicestershire	North Yorkshire	Essex	Tool
1	% of total population aged 65-74	2013	9.3	11.3	10.7	11.3	11.4	11.5	12.2	12.3	10.8	12.3	10.6	10.7	9.5	12.0	10.5	12.1	10.7	ASCP
2	% of total population aged 75-84	2013	5.7	6.2	6.2	6.3	6.6	7.0	7.2	7.0	6.2	7.6	6.2	6.4	5.0	7.2	6.1	7.2	6.4	ASCP
3	% of total population aged 85+	2013	2.30	2.50	2.42	2.35	2.75	3.00	2.82	2.72	2.58	3.14	2.42	2.77	2.12	3.27	2.45	2.91	2.62	ASCP
4	Prevalence of dementia	2014/15	0.74	0.93	0.92	0.79	0.79	0.89	0.96	0.86	0.76	0.86	0.86	0.87	0.69	0.96	0.75	0.98	0.76	ASCP
5	Prevalence of learning disabilities aged 18+	2013/14	0.48	0.59	0.62	0.45	0.44	0.47	0.50	0.51	0.39	0.60	0.49	0.59	0.50	0.53	0.41	0.52	0.47	ASCP
6	People aged 65-74 registered blind or partially sighted per 100,000	2013/14	569	670	532	480	415	419	576	509	439	448	626	401	523	441	532	426	401	ASCP
7	People aged 75+ registered blind or partially sighted per 100,000	2013/14	4255	5334	4179	3423	2299	4294	4217	4141	3727	3556	3450	3208	4598	3869	4003	3758	3808	ASCP
8	Older people (65+) supported throughout the year per 100,000	2013/14	9781	8755	7642	12529	5417	8194	8716	9150	6530	7119	9311	7432	7945	11357	9819	10671	9528	ASCP
9	People aged 65+ in receipt of Attendance Allowance per 1,000	May 2014	149.9	152.3	151.1	149.6	150.2	150.1	164.1	140.9	136.0	139.8	171.0	145.4	141.6	143.9	138.0	123.0	145.2	ASCP
9	Receiving DLA Pensionable Age per 1,000	May 2014	80.9	96.6	95.5	84.3	64.5	54.7	86.1	76.0	68.8	59.1	103.1	51.9	67.2	56.7	56.0	55.8	60.9	ASCP
10	Permanent admissions to residential and nursing care homes per 100,000 aged 65+	2013/14	651	716	633	655	608	630	593	653	540	776	796	802	749	574	730	509	604	ASCP
11	Social Isolation: percentage of adult social care users who have as much social contact as they would like	2014/15	44.8	42.4	43.6	41.8	50.5	45.9	48.2	44.8	41.1	48.7	44.9	47.2	45.0	47.5	40.0	51.6	41.3	ASCP

KEY:

- Significantly higher than England average
- Significantly better than England average
- Similar to the England average
- Significantly lower than England average
- Significantly worse than England average

Appendix E: Derby City and its CIPFA nearest neighbours – Risk Factors

	Indicator	Period	England	Derby	Coventry	Bolton	Dudley	Stockton-On-Tees	Walsall	Rochdale	Darlington	Oldham	Kirklees	Medway	Calderdale	Rotherham	Bury	Telford and	Tameside	Tool
1	% of total population aged 65-74	2013	9.3	8.1	7.7	9.3	10.6	9.2	9.4	8.7	10.0	8.8	9.1	8.6	9.6	10.4	9.7	9.2	9.6	ASCP
2	% of total population aged 75-84	2013	5.7	5.4	4.8	5.1	6.6	5.7	6.1	5.0	6.1	4.9	5.2	4.7	5.3	5.9	5.4	4.8	5.3	ASCP
3	% of total population aged 85+	2013	2.30	2.25	2.09	1.90	2.34	1.92	2.12	1.88	2.54	1.88	1.94	1.71	2.18	2.16	2.01	1.64	1.91	ASCP
4	Prevalence of dementia	2014/15	0.74	0.75	0.57	0.73	0.76	0.95	0.77	0.67	0.96	0.76	0.76	0.54	0.79	0.85	0.91	0.54	0.72	ASCP
5	Prevalence of learning disabilities aged 18+	2013/14	0.48	0.69	0.47	0.45	0.52	0.44	0.47	0.58	0.66	0.55	0.70	0.41	0.56	0.65	0.56	0.43	0.45	ASCP
6	People aged 65-74 registered blind or partially sighted per 100,000	2013/14	569	913	669	917	556	367	567	623	664	825	436	601	506	783	471	579	592	ASCP
7	People aged 75+ registered blind or partially sighted per 100,000	2013/14	4255	5475	3801	6031	3716	2662	3890	2605	4286	5081	3894	4136	3546	4843	4146	3315	3396	ASCP
8	Older people (65+) supported throughout the year per 100,000	2013/14	9781	12268	10123	9198	8267	18768	5882	13333	14124	8541	16284	9823	9318	10336	10494	10344	13937	ASCP
9	People aged 65+ in receipt of Attendance Allowance per 1,000	May 2014	149.9	163.4	178.8	158.2	171.2	148.1	197.7	172.2	137.9	161.8	136.8	138.3	127.1	155.2	142.9	176.5	162.3	ASCP
9	Receiving DLA Pensionable Age per 1,000	May 2014	80.9	100.2	109.9	125.4	95.8	103.9	115.0	126.9	98.6	118.8	98.9	72.1	80.7	143.2	99.9	120.1	127.3	ASCP

	Indicator	Period	England	Derby	Coventry	Bolton	Dudley	Stockton-On-Tees	Walsall	Rochdale	Darlington	Oldham	Kirklees	Medway	Calderdale	Rotherham	Bury	Telford and Wrekin	Tameside	Tool
10	Permanent admissions to residential and nursing care homes per 100,000 aged 65+	2013/14	651	606	768	832	782	881	448	757	1043	707	517	604	652	680	705	625	594	ASCP
11	1.18i- Social Isolation: percentage of adult social care users who have as much social contact as they would like	2014/15	44.8	42.7	43.1	36.4	46.7	48.1	44.7	44.9	47.7	45.8	39.7	46.2	52.6	40.2	42.1	43.2	45.0	ASCP

KEY:

- Significantly higher than England average
- Significantly better than England average
- Similar to the England average
- Significantly lower than England average
- Significantly worse than England average

Appendix F *- Derbyshire and its CIPFA nearest neighbours- falls*

	Indicator	Period	England	Derbyshire	Nottinghamshire	Staffordshire	Worcestershire	Suffolk	Cumbria	Lincolnshire	Warwickshire	Norfolk	Lancashire	Gloucestershire	Northamptonshire	Somerset	Leicestershire	North Yorkshire	Essex	Tool
1	2.24i - Injuries due to falls in people aged 65 and over (Persons)	2014/15	2125	2189	2007	2149	1783	1749	1851	1892	2160	1768	2022	1741	2396	2189	1769	1647	1958	PHOF
2	2.24i - Injuries due to falls in people aged 65 and over (Male)	2014/15	1740	1755	1605	1791	1445	1375	1525	1439	1778	1393	1626	1407	1880	1712	1366	1351	1582	PHOF
3	2.24i - Injuries due to falls in people aged 65 and over (Female)	2014/15	2509	2622	2409	2507	2120	2123	2177	2345	2543	2143	2417	2076	2912	2666	2172	1943	2334	PHOF
4	2.24ii - Injuries due to falls in people aged 65 and over - aged 65-79 (Persons)	2014/15	1012	991	931	952	821	759	910	920	1011	770	1022	777	1067	1011	779	789	862	PHOF
5	2.24ii - Injuries due to falls in people aged 65 and over - aged 65-79 (Male)	2014/15	826	769	746	724	663	590	707	661	706	592	833	606	745	774	534	646	676	PHOF
6	2.24ii - Injuries due to falls in people aged 65 and over - aged 65-79 (Female)	2014/15	1198	1212	1116	1180	979	929	1114	1179	1316	948	1211	948	1389	1249	1024	931	1047	PHOF
7	2.24iii - Injuries due to falls in people aged 65 and over - aged 80+ (Persons)	2014/15	5351	5663	5127	5620	4570	4618	4581	4712	5494	4662	4920	4538	6249	5604	4640	4137	5137	PHOF
8	2.24iii - Injuries due to falls in people aged 65 and over - aged 80+ (Male)	2014/15	4391	4616	4096	4886	3712	3651	3899	3695	4886	3717	3925	3732	5169	4432	3779	3395	4208	PHOF
9	2.24iii - Injuries due to falls in people aged 65 and over - aged 80+ (Female)	2014/15	6312	6711	6158	6354	5429	5585	5262	5728	6102	5607	5915	5344	7329	6776	5502	4879	6066	PHOF
10	4.14i - Hip fractures in people aged 65 and over (Persons)	2014/15	571	576	605	598	585	502	581	605	576	540	595	517	591	633	507	564	601	PHOF
11	4.14i - Hip fractures in people aged 65 and over (Male)	2014/15	425	407	462	433	440	382	474	440	446	383	420	396	422	444	334	426	446	PHOF
12	4.14i - Hip fractures in people aged 65 and over (Female)	2014/15	718	745	749	764	730	622	688	770	706	697	771	637	759	823	679	701	756	PHOF

	Indicator	Period	England	Derbyshire	Nottinghamshire	Staffordshire	Worcestershire	Suffolk	Cumbria	Lincolnshire	Warwickshire	Norfolk	Lancashire	Gloucestershire	Northamptonshire	Somerset	Leicestershire	North Yorkshire	Essex	Tool
13	4.14ii - Hip fractures in people aged 65 and over - aged 65-79 (Persons)	2014/15	239	245	217	229	234	210	230	250	252	230	259	199	245	264	198	237	240	PHOF
14	4.14ii - Hip fractures in people aged 65 and over - aged 65-79 (Male)	2014/15	167	157	149	124	145	161	173	174	176	144	171	142	148	163	87	152	161	PHOF
15	4.14ii - Hip fractures in people aged 65 and over - aged 65-79 (Female)	2014/15	312	333	285	335	322	260	286	325	327	316	346	255	342	366	309	322	318	PHOF
16	4.14iii - Hip fractures in people aged 65 and over - aged 80+ (Persons)	2014/15	1535	1537	1732	1668	1604	1348	1599	1636	1516	1438	1571	1439	1594	1704	1401	1512	1648	PHOF
17	4.14iii - Hip fractures in people aged 65 and over - aged 80+ (Male)	2014/15	1174	1135	1370	1328	1295	1024	1345	1209	1229	1074	1140	1133	1216	1259	1050	1222	1272	PHOF
18	4.14iii - Hip fractures in people aged 65 and over - aged 80+ (Female)	2014/15	1895	1939	2093	2008	1913	1672	1852	2062	1804	1802	2003	1745	1971	2149	1752	1802	2024	PHOF

Appendix G- Derby City and its CIPFA nearest neighbours- falls

	Indicator	Period	England	Derby	Coventry	Bolton	Dudley	Stockton-On-Tees	Walsall	Rochdale	Darlington	Oldham	Kirklees	Medway	Calderdale	Rotherham	Bury	Telford and Wrekin	Tameside	Tool
1	2.24i - Injuries due to falls in people aged 65 and over (Persons)	2014/15	2125	2175	2596	1975	2880	1870	1769	2291	1900	2523	2226	1778	2147	1417	1959	1402	2256	PHOF
2	2.24i - Injuries due to falls in people aged 65 and over (Male)	2014/15	1740	1957	2114	1611	2433	1459	1551	1941	1493	2060	1902	1419	1871	1136	1623	1134	1750	PHOF
3	2.24i - Injuries due to falls in people aged 65 and over (Female)	2014/15	2509	2392	3078	2340	3327	2281	1986	2641	2308	2986	2551	2137	2423	1697	2295	1670	2763	PHOF
4	2.24ii - Injuries due to falls in people aged 65 and over - aged 65-79 (Persons)	2014/15	1012	1002	1299	927	1245	991	790	1182	905	1287	1002	887	1034	683	950	716	1094	PHOF
5	2.24ii - Injuries due to falls in people aged 65 and over - aged 65-79 (Male)	2014/15	826	854	1108	750	1076	816	614	1001	699	1089	778	672	892	437	768	533	822	PHOF
6	2.24ii - Injuries due to falls in people aged 65 and over - aged 65-79 (Female)	2014/15	1198	1150	1490	1104	1415	1166	966	1364	1112	1484	1226	1103	1176	928	1131	899	1366	PHOF
7	2.24iii - Injuries due to falls in people aged 65 and over - aged 80+ (Persons)	2014/15	5351	5575	6357	5013	7621	4418	4606	5506	4785	6110	5778	4362	5374	3545	4886	3391	5628	PHOF
8	2.24iii - Injuries due to falls in people aged 65 and over - aged 80+ (Male)	2014/15	4391	5158	5031	4105	6370	3322	4269	4668	3795	4877	5164	3588	4710	3163	4100	2878	4441	PHOF
9	2.24iii - Injuries due to falls in people aged 65 and over - aged 80+ (Female)	2014/15	6312	5993	7683	5921	8872	5515	4943	6344	5774	7344	6393	5136	6038	3928	5671	3904	6815	PHOF
10	4.14i - Hip fractures in people aged 65 and over (Persons)	2014/15	571	478	590	588	716	608	654	572	624	622	597	607	519	596	587	548	743	PHOF
11	4.14i - Hip fractures in people aged 65 and over (Male)	2014/15	425	359	446	411	558	421	562	437	367	485	428	455	408	442	434	394	529	PHOF
12	4.14i - Hip fractures in people aged 65 and over (Female)	2014/15	718	597	734	765	874	795	747	707	881	758	766	758	629	749	740	702	957	PHOF
13	4.14ii - Hip fractures in people aged 65 and over - aged 65-79 (Persons)	2014/15	239	222	264	274	279	249	226	254	228	251	236	253	250	239	282	251	297	PHOF

	Indicator	Period	England	Derby	Coventry	Bolton	Dudley	Stockton-On-Tees	Walsall	Rochdale	Darlington	Oldham	Kirklees	Medway	Calderdale	Rotherham	Bury	Telford and Wrekin	Tameside	Tool
14	4.14ii - Hip fractures in people aged 65 and over - aged 65-79 (Male)	2014/15	167	175	208	195	234	164	165	189	134	176	136	167	177	109	258	103	203	PHOF
15	4.14ii - Hip fractures in people aged 65 and over - aged 65-79 (Female)	2014/15	312	269	321	353	323	335	287	320	322	326	336	339	324	368	306	398	391	PHOF
16	4.14iii - Hip fractures in people aged 65 and over - aged 80+ (Persons)	2014/15	1535	1221	1535	1499	1985	1648	1896	1493	1771	1697	1644	1632	1297	1631	1471	1411	2036	PHOF
17	4.14iii - Hip fractures in people aged 65 and over - aged 80+ (Male)	2014/15	1174	893	1138	1036	1498	1168	1712	1157	1042	1382	1274	1291	1079	1407	945	1239	1476	PHOF
18	4.14iii - Hip fractures in people aged 65 and over - aged 80+ (Female)	2014/15	1895	1548	1932	1963	2472	2128	2079	1830	2500	2011	2014	1973	1515	1855	1997	1582	2597	PHOF

Appendix H- Derbyshire districts- falls

	Indicator	Period	England	Derbyshire	Derby	Amber Valley	Bolsover	Chesterfield	Derbyshire Dales	Erewash	High Peak	N E Derbyshire	South Derbyshire	Tool
1	2.24i - Injuries due to falls in people aged 65 and over (Persons)	2014/15	2125	2189	2175	2076	2057	2449	2063	2023	2396	2149	2414	PHOF
2	2.24i - Injuries due to falls in people aged 65 and over (Male)	2014/15	1740	1755	1957	1699	1704	2006	1579	1579	1928	1719	1902	PHOF
3	2.24i - Injuries due to falls in people aged 65 and over (Female)	2014/15	2509	2622	2392	2453	2410	2891	2547	2468	2864	2579	2927	PHOF
4	2.24ii - Injuries due to falls in people aged 65 and over - aged 65-79 (Persons)	2014/15	1012	991	1002	978	939	1197	928	1029	1103	819	949	PHOF
5	2.24ii - Injuries due to falls in people aged 65 and over - aged 65-79 (Male)	2014/15	826	769	854	786	645	953	668	752	880	667	793	PHOF
6	2.24ii - Injuries due to falls in people aged 65 and over - aged 65-79 (Female)	2014/15	1198	1212	1150	1170	1232	1440	1188	1307	1326	972	1105	PHOF
7	2.24iii - Injuries due to falls in people aged 65 and over - aged 80+ (Persons)	2014/15	5351	5663	5575	5260	5301	6079	5354	4906	6145	6007	6663	PHOF
8	2.24iii - Injuries due to falls in people aged 65 and over - aged 80+ (Male)	2014/15	4391	4616	5158	4346	4776	5059	4220	3976	4967	4771	5116	PHOF
9	2.24iii - Injuries due to falls in people aged 65 and over - aged 80+ (Female)	2014/15	6312	6711	5993	6173	5825	7099	6488	5836	7323	7242	8210	PHOF
10	4.14i - Hip fractures in people aged 65 and over (Persons)	2014/15	571	576	478	497	592	703	522	542	510	638	629	PHOF
11	4.14i - Hip fractures in people aged 65 and over (Male)	2014/15	425	407	359	285	490	572	357	360	333	505	388	PHOF
12	4.14i - Hip fractures in people aged 65 and over (Female)	2014/15	718	745	597	708	695	834	686	724	687	772	870	PHOF
13	4.14ii - Hip fractures in people aged 65 and over - aged 65-79 (Persons)	2014/15	239	245	222	246	261	403	236	219	173	226	181	PHOF
14	4.14ii - Hip fractures in people aged 65 and over - aged 65-79 (Male)	2014/15	167	157	175	113	168	275	138	195	129	173	50	PHOF
15	4.14ii - Hip fractures in people aged 65 and over - aged 65-79 (Female)	2014/15	312	333	269	378	353	531	334	242	218	280	312	PHOF
16	4.14iii - Hip fractures in people aged 65 and over - aged 80+ (Persons)	2014/15	1535	1537	1221	1226	1555	1574	1349	1479	1485	1833	1928	PHOF
17	4.14iii - Hip fractures in people aged 65 and over - aged 80+ (Male)	2014/15	1174	1135	893	785	1424	1435	992	838	924	1469	1369	PHOF
18	4.14iii - Hip fractures in people aged 65 and over - aged 80+ (Female)	2014/15	1895	1939	1548	1666	1685	1712	1707	2120	2047	2198	2487	PHOF