Public Health Team (Adults)

Slough Borough Council, (work in progress – last updated on 2nd Aug. 2024)

Reducing falls and fractures is important for maintaining the health, wellbeing and independence of older people in Slough

Aims & objectives

The main aims of this needs assessment are to:

- better understand the burden of falls and fractures to our older adults (65 years and over), and
- promote healthier behaviours across our most vulnerable communities locally.

Objectives

- Provide an overview of the epidemiology of falls in Slough and nationally
- Review the evidence and recommendations for effective management of falls and quality care services
- Identify current service provision
- Identify gaps in current service and propose actions for local planning and strategy formulation

This work will inform the development of our plan and actions to address falls prevention and enhance management and care services in Slough.

CONTENTS

Data sources: PHE fingertips, HES data, Frimley ICB/primary care data, Connected care data | S4H data and ARC data

Introduction: Having a fall can happen to anyone

Definitions

A fall is defined as an event which causes a person to, unintentionally, rest on the ground or lower level, and is not a result of a major intrinsic event (such as a stroke) or overwhelming hazard. [1]

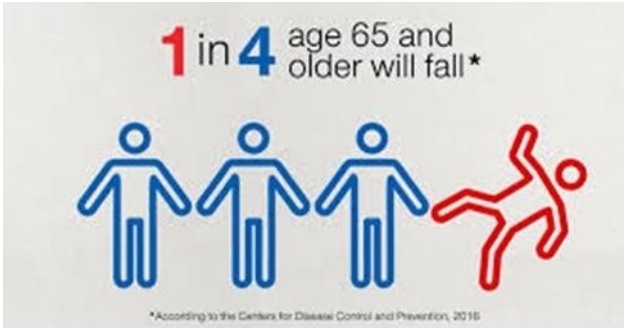
Having a fall can happen to anyone; it is an unfortunate but normal result of human anatomy. However, as people get older, they are more likely to fall over. Falls can become recurrent and result in injuries including head injuries and hip fractures.

A near-fall is defined as a loss of balance that would result in a fall if sufficient balance recovery manoeuvres are not executed. Compared to falls, near-falls and its associated balance recovery manoeuvres have been understudied. [2]

Older adults may not recognise a near-fall or identify the use of their balance recovery manoeuvres to prevent a fall.

The Four Most Common Types of Falls (and their causes)

- Step and Fall – Caused by Unexpected Height Changes.
- Slip and Fall – Caused by Wet and Slippery Surfaces.
- Trip and Fall – Caused by Unexpected Objects in the Way.
- Stump and Fall – Caused by Objects That Make You Lose Your Balance.



1. Falls: applying All our Health (2022)
2. Near-falls in Singapore community-dwelling older adults: a feasibility study (2021)

Falls are events resulting from the presence of risk factors, and the causes of having a fall are often multifactorial

RISK FACTORS

Who is at risk? While all people who fall are at risk of injury, the age, gender and health of the individual can affect the type and severity of injury.

Age: Age is one of the key risk factors for falls. *Older people* have the highest risk of death or serious injury arising from a fall and the risk increases with age. This risk level may be in part due to physical, sensory, and cognitive changes associated with ageing, in combination with environments that are not adapted for an ageing population.

Another high-risk group is *children*. Childhood falls occur largely because of their evolving developmental stages, innate curiosity in their surroundings, and increasing levels of independence that coincide with more challenging behaviours known as 'risk taking'.

Gender: Across all age groups and regions, both genders are at risk of falls. Older women and younger children are especially prone to falls and increased injury severity.

Other risk factors include:

- occupations at elevated heights or other hazardous working conditions;
- alcohol or substance use;
- socioeconomic factors including poverty, overcrowded housing, sole parenthood, young maternal age;
- underlying medical conditions, such as neurological, cardiac or other disabling conditions;
- side effects of medication, physical inactivity and loss of balance, particularly among older people;
- poor mobility, cognition, and vision, particularly among those living in an institution, such as a nursing home or chronic care facility;
- unsafe environments, particularly for those with poor balance and limited vision.

WHO Falls report (accessed 17.4.2024)

National policy and guidance

Key Documents

Preventing falls requires a multifactorial approach, including targeted case finding, comprehensive assessment of risk factors and implementation of appropriate interventions.

- 2018 NICE impact report on falls and fragility fractures focused on the uptake and impact of the NHS Right Care Pathway - Falls and Fragility Fractures 2017.
- The pathway provides recommendations and resources for health departments NHS Long Term Plan 2019 - Falls
- The plan recognized that “a 50% improvement in the delivery of evidence-based care could deliver £100 million in savings”.
- Age UK launched the 'Stop Falling: Start Saving Lives and Money' campaign calling for improved access to falls prevention services and special exercise programmes.
- The *World Guidelines for Falls Prevention and Management for Older Adults: A Global Initiative* published by *Age and Ageing* provide a framework and expert recommendations to healthcare and other professionals working with older adults on how to identify and assess the risk of falls

The burden of falls – key stats

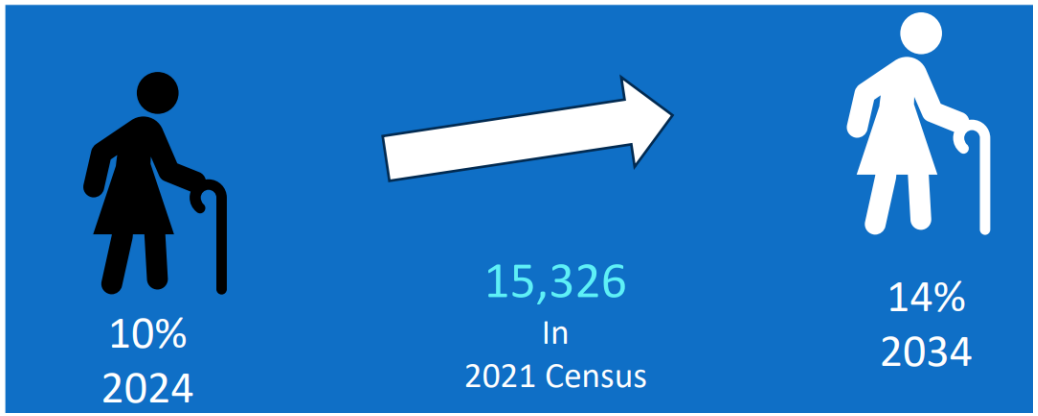
National Figures

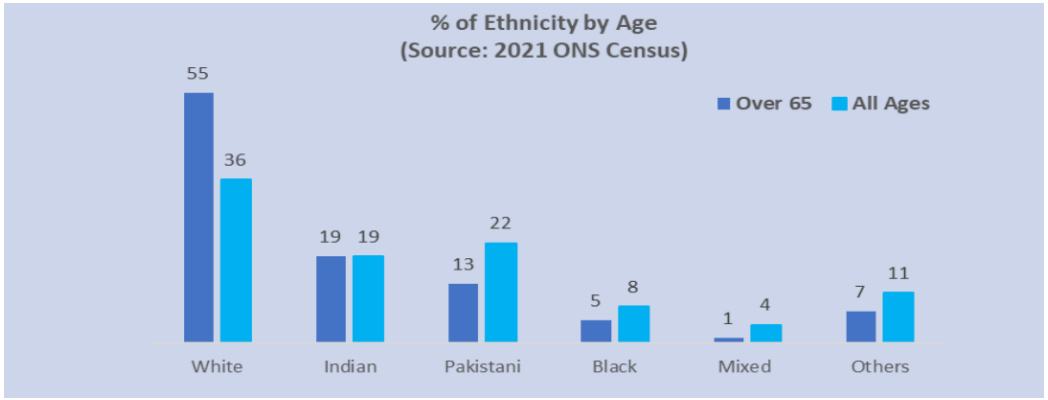
- **Falls and fractures are a common and serious health issue faced by older people in England**. People aged 65 and older have the highest risk of falling; around a third of people aged 65 and over, and around half of people aged 80 and over, fall at least once a year. [1].
- **Falls contribute significantly to hip fractures in older people** and is the biggest cause of accidental death and a major cause of disability in older people aged 65+ in the UK. (Age UK, 2019)
- The Public health profiles reported that between 2021 to 2022 there were 223,101 (2100/100,000) **emergency hospital admissions** related to falls among patients aged 65 and over, with around 146,934 (5311/100,000) of these patients aged 80 and over (65.9%). The total annual cost of fragility fractures to the UK has been estimated at £4.4 billion which includes £1.1 billion for social care; hip fractures account for around £2 billion of the total cost. [2]
- **The main causes for falls** are due to: Medication use (1/3), Strength & Balance needs, (1/3) & cardiovascular disease, including Atrial Fibrillation, (1/3).
- **Falls were the ninth highest cause of disability adjusted life years** (DALYs) in the UK in 2019 and the highest cause of injury. Unaddressed fall hazards in the home are estimated to cost the NHS in England £435 million.
- Falls in hospitals are the most reported **patient safety incident** with more than 240,000 reported in acute hospitals and mental health trusts in England and Wales.

1. Falls: applying All Our Health - GOV.UK
2. Public Health Outcomes Framework (PHOF).

Slough's demography

'Risk factors' for falls





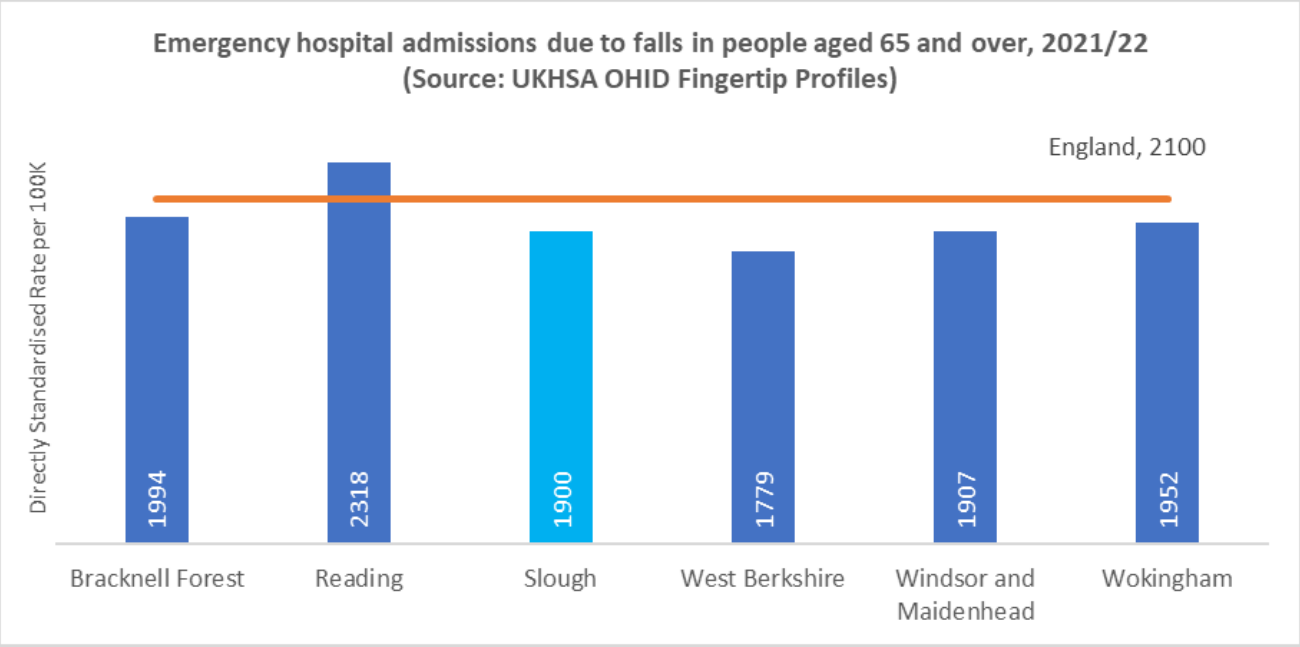
- Approx 10% of population are made up of over 65s in 2021 Census. This is expected to rise to 14% by 2034. The correlation between older age and the risk of falls and frailty is multifactorial. A meta-analyses found that among the older adults, frailty was significantly associated with a higher risk for falls, compared with those without frailty (RR=1.48), and the results of subgroup analysis indicated that men had a higher risk for falls than women among the older adults with frailty. [1]
- Amongst the over 65s by ethnicity, 55% are white followed by 19% Indians and 13% Pakistani population. It's important to better understand what would be the consequences by ethnicity, by age, and those 65+ more specifically.

Ethnicity: Within the different BAME groups, **Asian or Asian British were recorded as having the highest levels of frailty** (56.6%), which was significantly higher than Black or Black British (48.0%) and higher than Mixed (52.3%, though not significantly).

[1] Frailty Is a Risk Factor for Falls in the Older Adults: A Systematic Review and Meta-Analysis (Journal of Nutrition, Health and Aging)

Falls in people over 65: Berks East and the local picture

Hospital admissions



Slough has the lowest rate of admissions compared to England, South-East and other boroughs in Berkshire apart from West Berkshire.

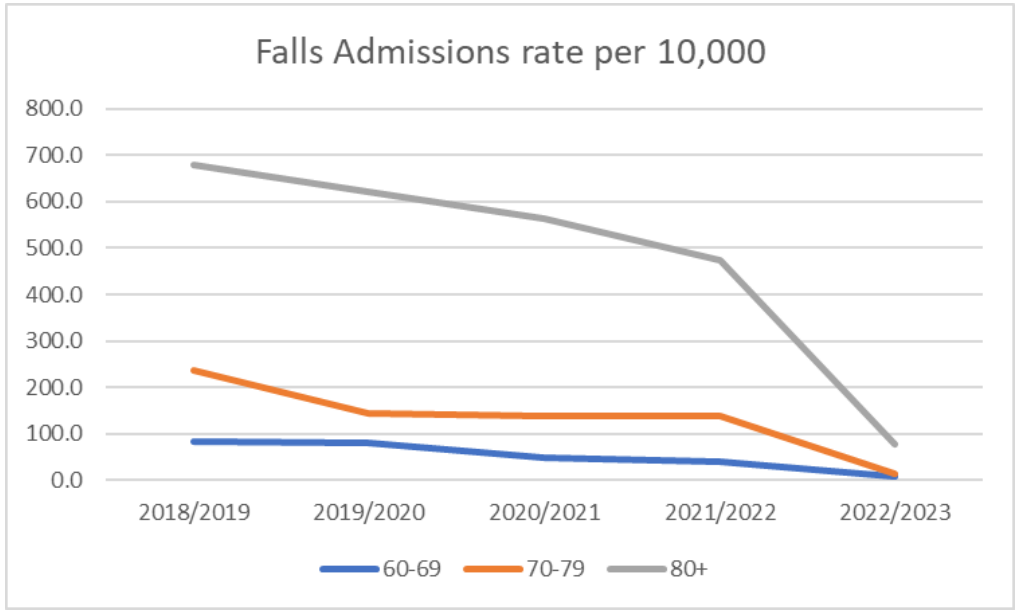
A few questions related to the local data/rates that we need to investigate:

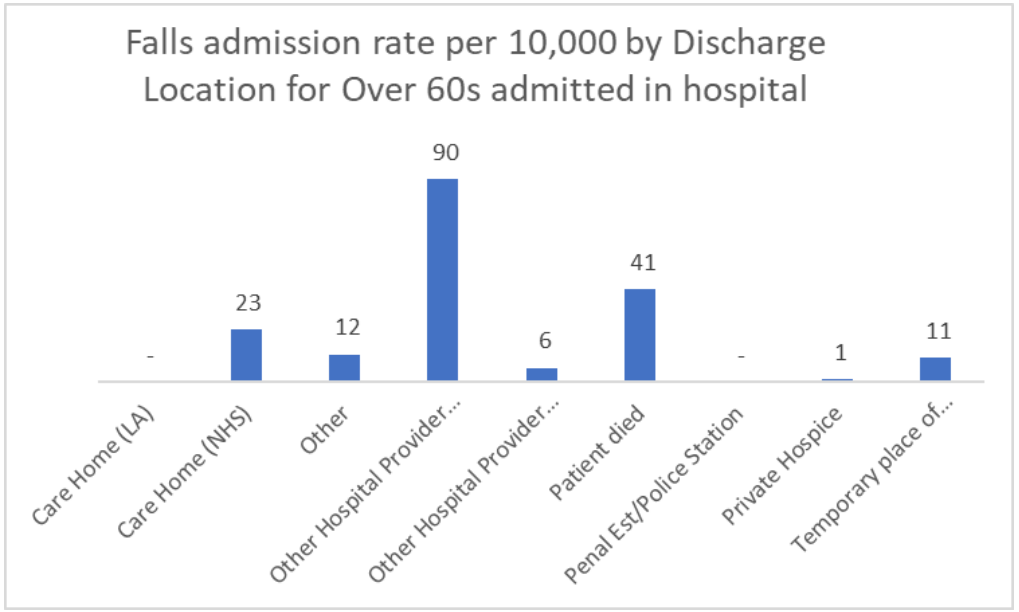
- What is the reliability of the HES data knowing the system change in Frimley Park Trust where they had coding changes?
- We need to understand the impact on the data due to the above and the system change during and in a post-Covid era (from Feb. 22 onwards)
- In addition, we also need to compare the HES data for 2019/20 to 2022/23 to get a better picture of hospital admissions for Slough and as compared to neighboring boroughs.

Falls admissions by age, trends over time and the discharge location

Emergency Admissions

Emergency Admissions due to Falls between 2018/19 and 2022/23



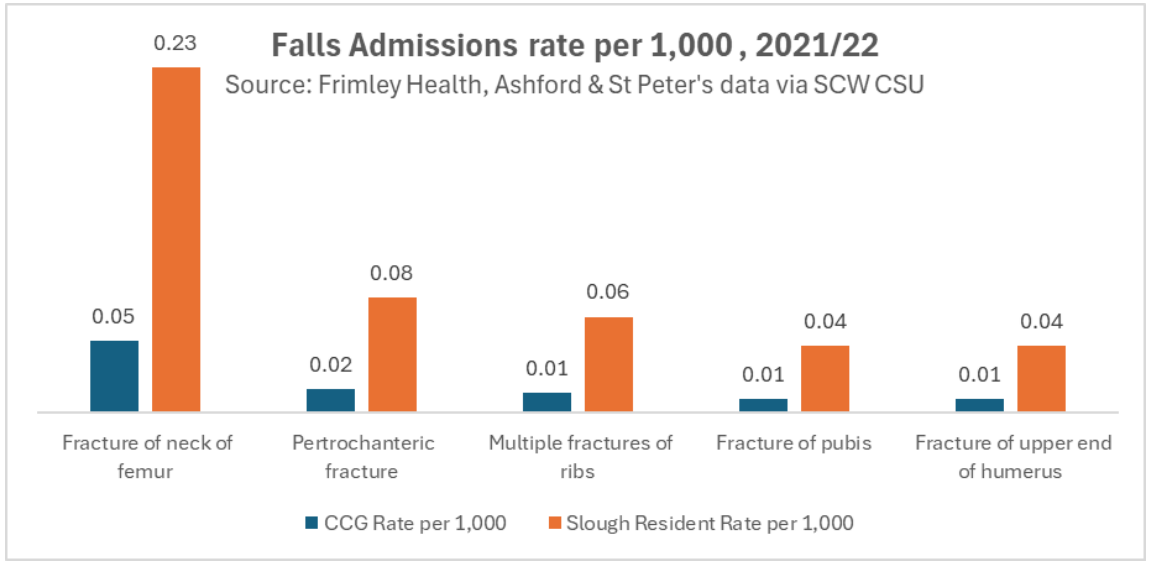


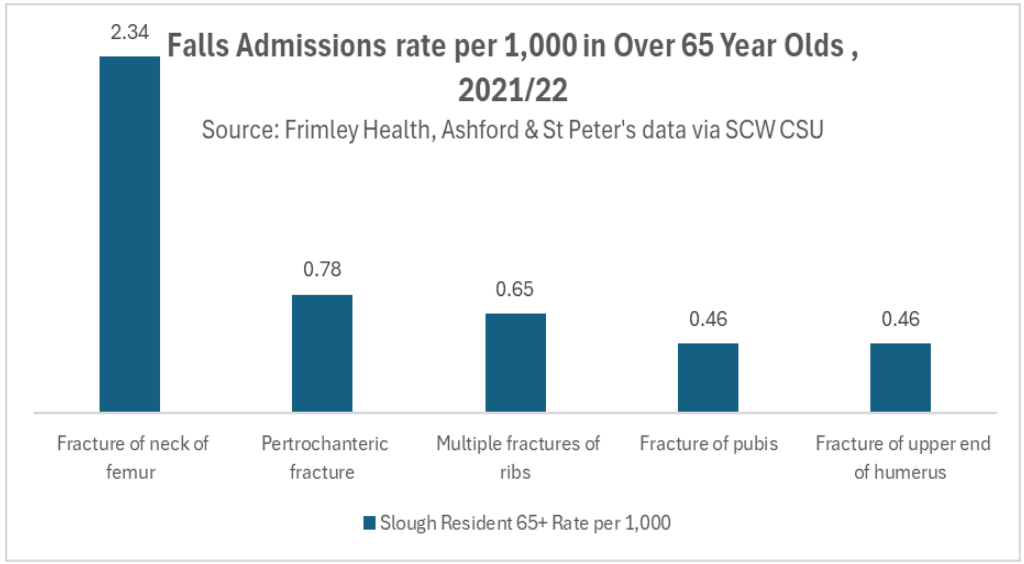
Source: FRIMLEY ICB via CSU and 2018 ONS SNPP

There is a drop in falls on 80+ age group, considered to be at higher risk group of falling in 2022/23. These patients may be seen by Solution for health (S4H) services (to check if that's the case). Most of the cases are discharged to their usual place of residence (not included in chart due to values offering skewness in chart); other hospital provider; patient died (in hospital?) and care homes (what about nursing homes?)

Falls Admissions: Fractures data locally for 2021/22

Hospital Admissions

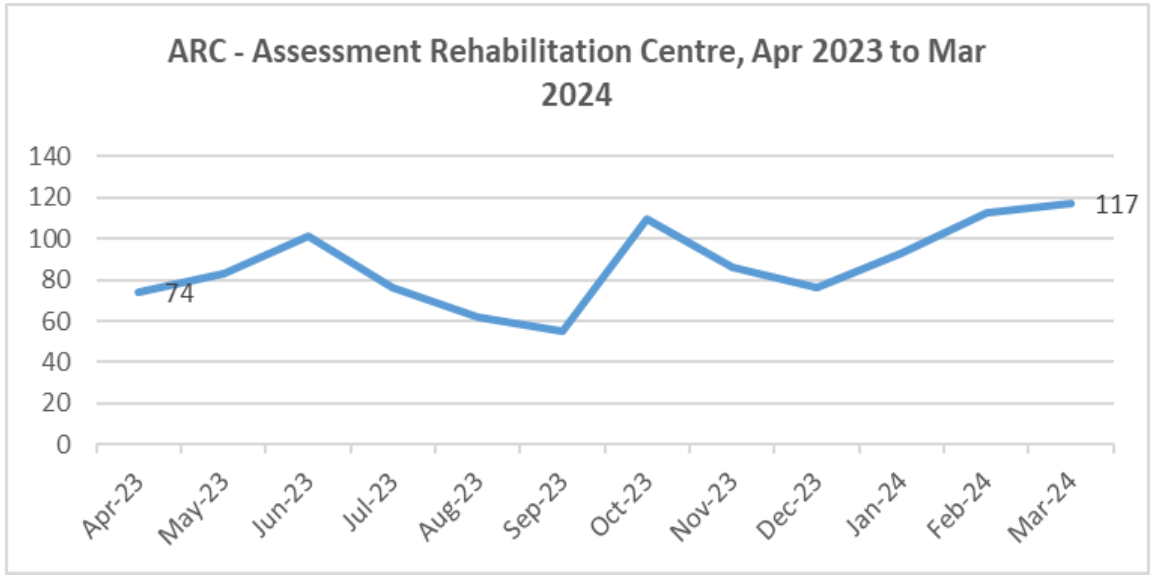


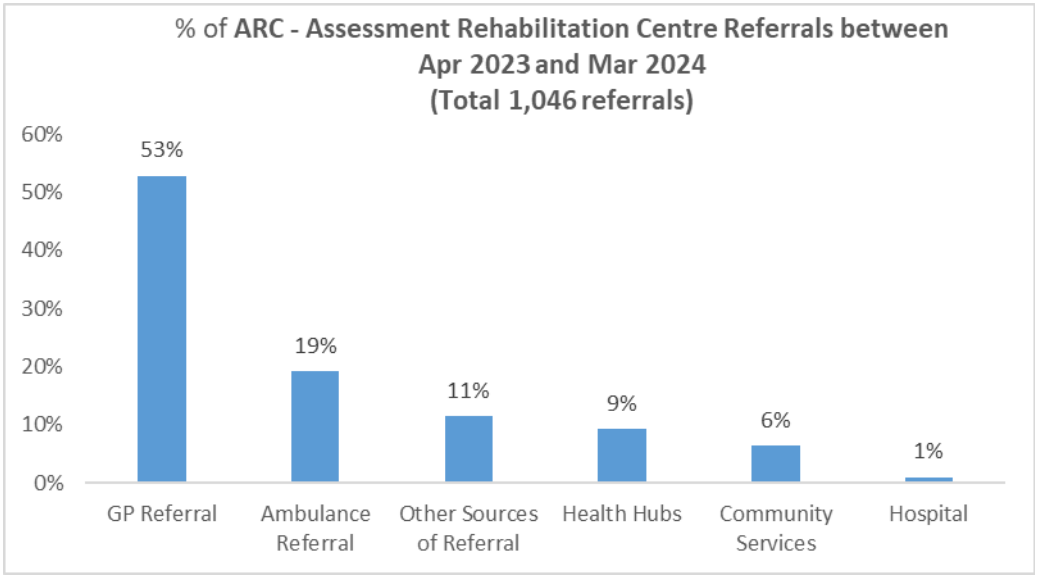


- Overall, Slough residents have the highest rate of falls admissions compared to other residents within the Firmly ICB.
- Fracture neck of femur rates of admissions in Slough are almost 5 times more than other residents.
- In 2021/22, we had 143 falls admissions, 69 of those are related to fracture neck of femur.
- Over 60% of admissions in the over 65 population are White British followed by 14% Indian and other ethnic groups.
- In 2023/24, the system reported 122 falls admissions with similar statistics. However, due to system coding issue the data may not be reliable. *It's worth explaining what the system coding issue is and how that can affect the local data.*

Target and performance: Assessment Rehabilitation Centre Referrals (ARC)

ARC DATA (APRIL '23 to MARCH '24)





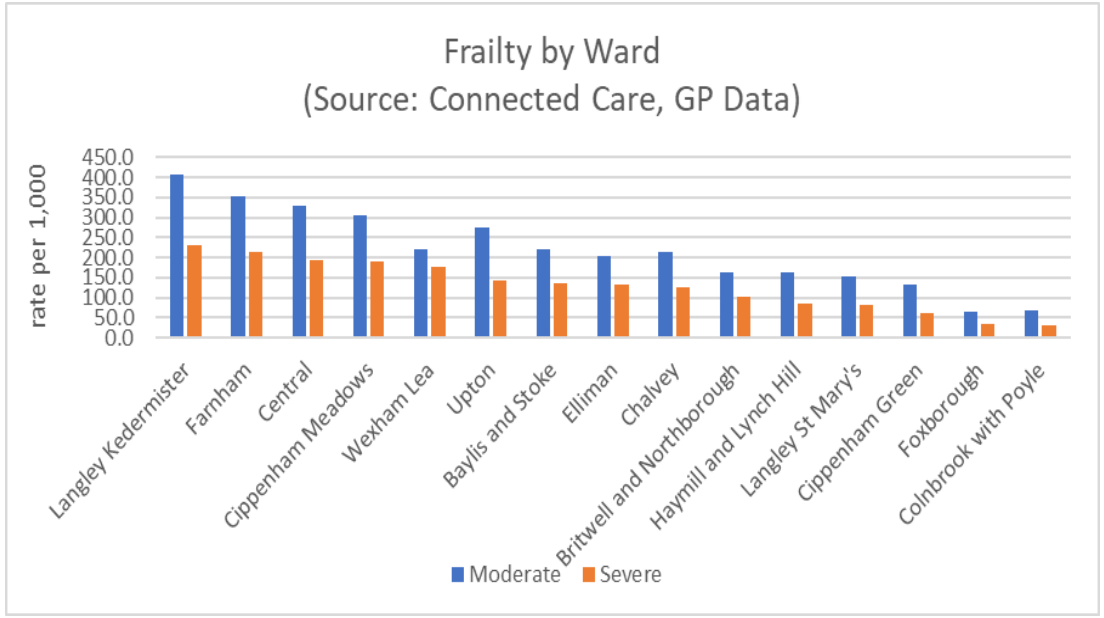
Source: Frimley ICS

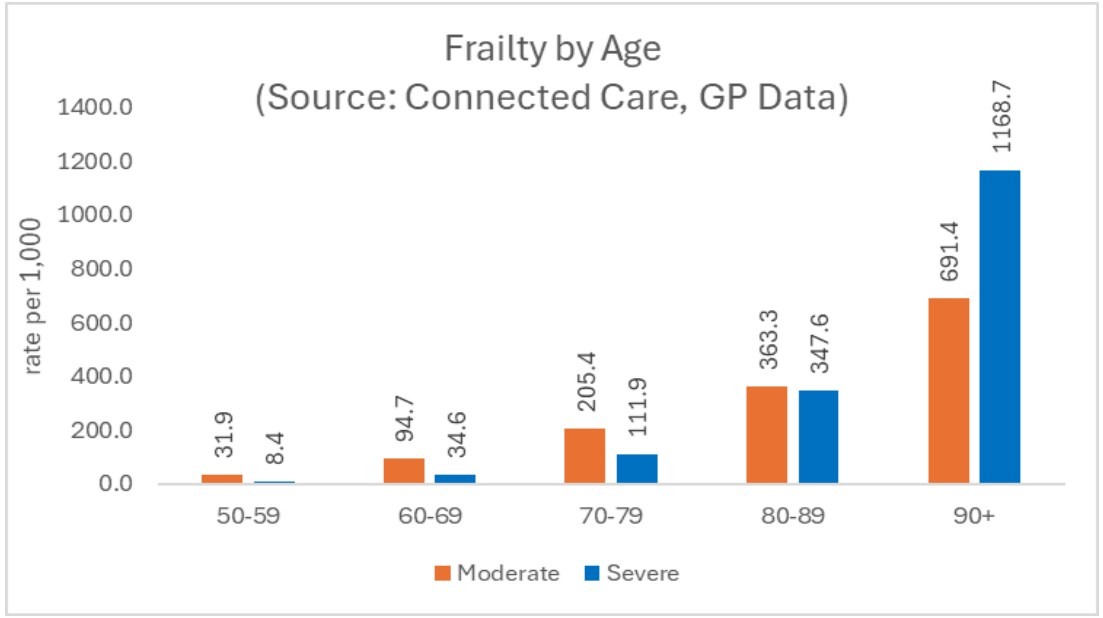
We had 1,046 referrals between April 2023 and March 2024. Over 50% of referrals are from GPs followed by 19% Ambulance referrals and the rest (30%) derive from other sources and community referrals.

This is relatively a new service that is having an impact on the Ambulance pick ups of Slough residents which is low in number.

Primary Care data – Electronic Frail Index (eFI)

Frailty By Age And Ward



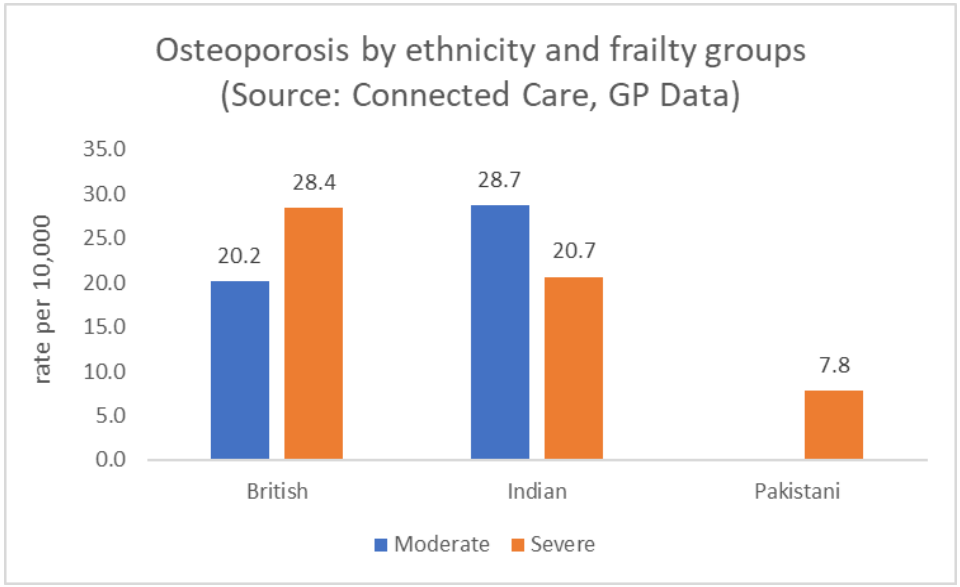


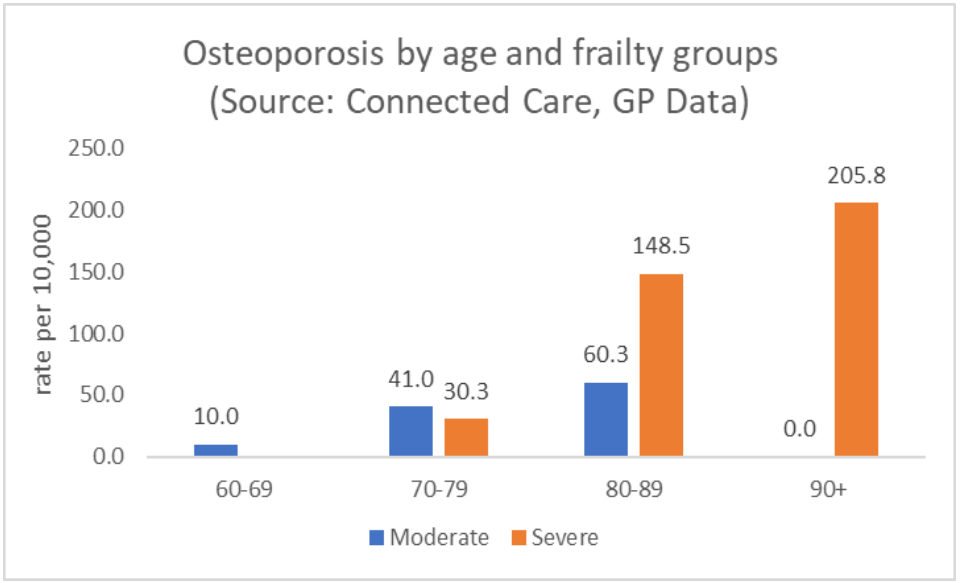
Source: Connected Care from Frimley ICS

- High rates of frailty in Langley Kederminster followed by Farnham and Slough Central Wards which is also falls on older adults living among the most deprived quintiles.
- The moderate risk group people are substantially higher than severe risk across deprivation and ethnicity amongst the over 50-year-old population.

Target & Performance: Osteoporosis by Ward and Frailty Groups

Osteoporosis – Primary Care Data



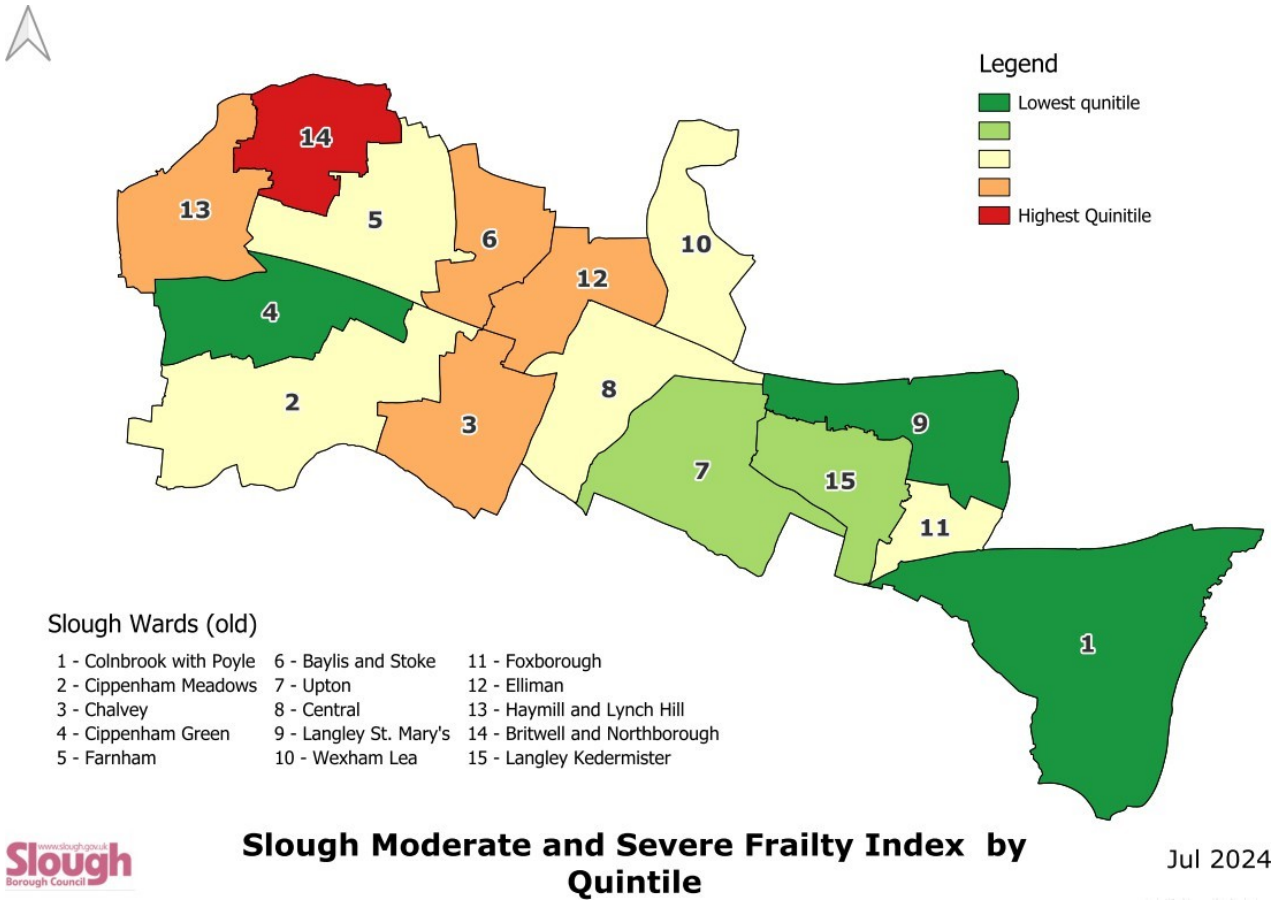


Source: Connected Care from Frimley ICS

- High rates of osteoporosis in wards like Upton and Wexham Lea. Upton ward comes under the top quintile of most deprived wards where ash Wexham Lea is in the least deprived ward.
- Indians followed by British have high rates of osteoporosis and the moderate frailty group is noticeable in 70-79 age group, and it is starting to show in 60-69 age group.

Inequalities: Frailty as assessed by eFI in over 50s locally

Frailty By Ward



- 5,838 cases in the last 12 months in the over 50 age group as of July 2024 in Slough with Moderate and Severe Frailty Index.
- A higher number of cases is reported in the north of the borough in a location that is amongst the most deprived areas in Slough.

Falls Prevention save lives, save money, and help older adults stay independent and falls free

Protective Factors

Evidence-based community falls prevention programs significantly reduce falls, risk factors, and reduce the costs associated with falls

Popular community-based falls prevention programs include:

- A Matter of Balance
- Otago Exercise Program
- Stepping On
- Tai Ji Quan: Moving for Better Balance
- Enhance Fitness

[Falls Prevention Programs: Saving Lives, Saving Money Infographic - National Council on Aging]

Source: Active Cumbria Frailty and Falls Prevention

Evidence of effective interventions to prevent falls

Key Findings From The Lit Review (1)

- The considered evidence suggests that despite great strides made at various levels in preventing falls and fall-related injuries in older adults (aged 65 and older), in terms of local approaches and at community level there is still room for improvement.
- **A multifactorial approach seems to be more appropriate in addressing falls and preventing fall-related injuries**. Specifically, programs based on community-based approaches, home modifications, and strength and balance training are seen as effective. There is evidence to suggest that together they may better address multiple risk factors that contribute to a fall.
- **A multifactorial approach is complex and usually translates to a range of multifactorial interventions** that show a positive effect on reducing fall rates and the number of people experiencing falls among older adults. In particular: multifactorial interventions that include exercise and environmental modification are seen to be particularly effective in reducing falls.
- Evidence generally suggests that **a tailored personal approach** (even for group contexts) can greatly improve the chance of older people engaging with and maintaining an intervention programme.

In summary, for older adults in the community, strength and balance exercise programs and vitamin D supplementation in those with deficiency are found to be highly effective in preventing falls. In residential aged care, routine vitamin D supplementation is effective in preventing falls and fractures. Other effective interventions would include psychoactive drug withdrawal, home visits, vision optimisation and a multifactorial approach.

Frailty as a major risk for falls & Electronic Frailty Index (eFI) as an effective tool in predicting falls

Key Findings (2)

Frailty is a distinctive health state related to the ageing process. Older people living with frailty are at risk of adverse outcomes such as dramatic changes in their physical and mental wellbeing.

- **Around 10% of people aged over 65 years have frailty**, rising to between a quarter and a half of those aged over 85 years. Older people are more likely to experience falls and therefore should be evaluated for the possibility of geriatric syndromes such as frailty, which may be addressed to reduce the risk for bone fractures and death.
- **Understanding of frailty dynamics can inform predictions of current and future care needs** to facilitate timely planning of appropriate interventions, service configurations and workforce requirements.
- **Systematic screening for frailty would be expensive** and there is currently no evidence for improved outcomes. *NICE guidelines on improving care and support for people with frailty focuses on multi-morbidities and the clinical assessment and management and older people with social care needs*.
- ***The electronic frailty index* (eFI)** uses existing electronic health record data to detect and assess the severity of frailty. It uses a cumulative deficit model of frailty, in which frailty is defined through the accumulation of deficits (eFI comprise 36 of these), which can be clinical signs, symptoms, diseases and disability.
- **Practical use and benefits**: The preliminary results of an intervention deployed in primary care using eFI scores to proactively identify people at risk of falling are deemed promising and highlight the role of PC in offering proactive falls prevention for patients with moderate frailty, particularly those who report falls or near misses the previous 12 months.

Commissioning the Falls prevention services in Slough

Solutions4Health and FF4L Service

- **The Service provides an evidence-based risk assessment and strength and balance exercise programme** (at home or in the community) as part of a wider falls prevention strategy and integrated system linking existing services. The providers have a good understanding and close working relationship with local stakeholders, organisations and residents.
- They also have special insight into the changing health needs of a shifting demographics in Slough and our diverse communities. **In terms of evidence for the effectiveness of FF4LS, S4H have recorded improvements in falls risk and frailty amongst those who complete the 12-week strength and balance classes**.
- In addition to the 12-week course, all service users are provided with a 'Home Exercise' booklet which users have found useful. Those who cannot commit to the 12 weeks due to various reason such as falling sick, having to go back to work, looking after their grandchildren or traveling are encouraged to follow the exercises in the booklet regularly to strengthen their muscles and prevent falls.

Technology Enabled Care for Falls prevention

Evidence Of Work

Redefining Resident Care Beyond Falls Prevention using Technology

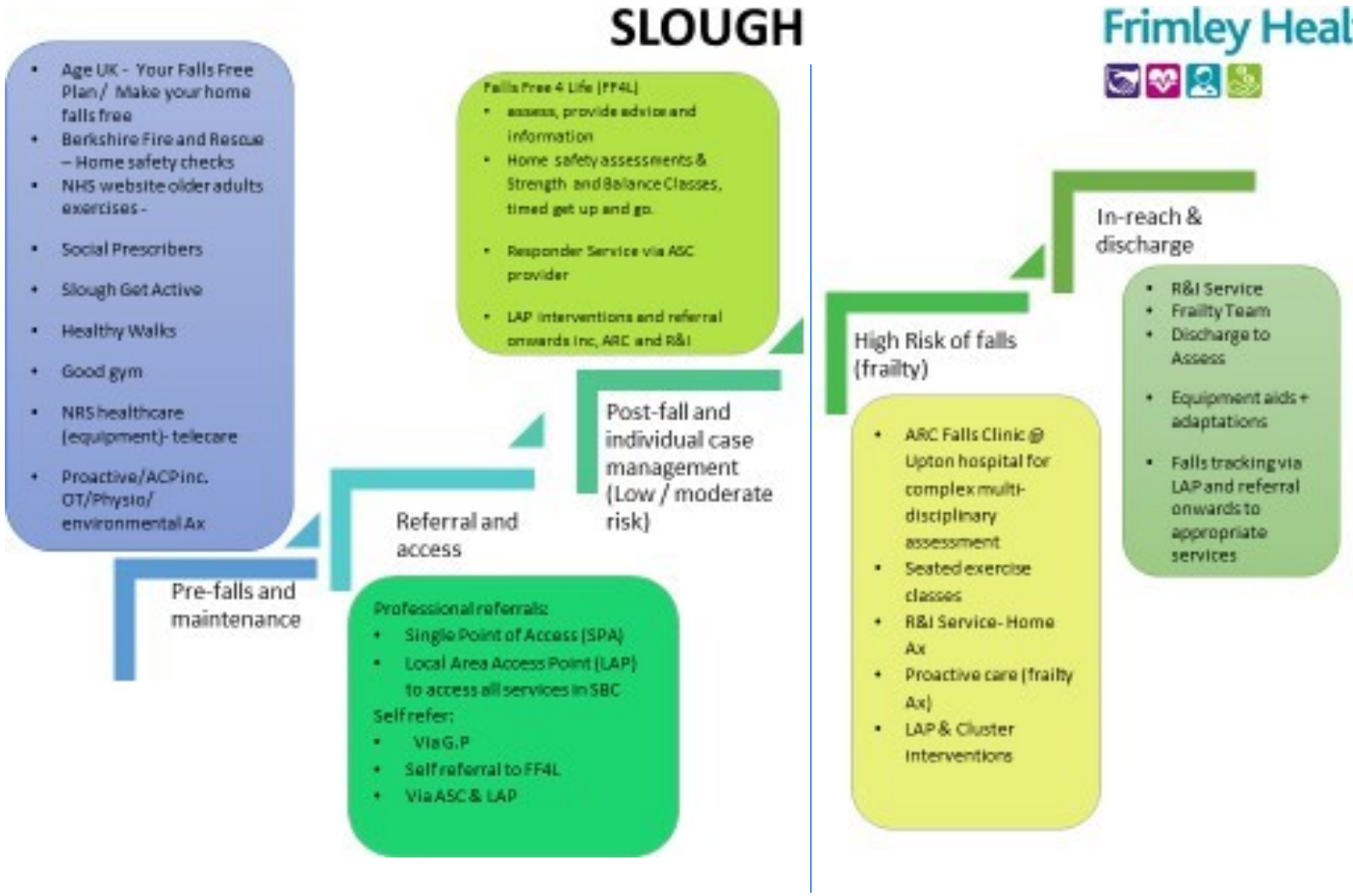
- Falls and the resulting harm caused by falls can significantly impact a person's well-being and mobility. Within care settings, older people are three times more likely to fall than older people living in their own homes with more serious consequences.
- In today's dynamic healthcare landscape, resident well-being is paramount, and care homes are looking for innovative solutions to improve care outcomes. [1]

Rapid review of digital technologies to prevent falls in people living with dementia – Key findings [2]

- Although digital technologies have the potential to reduce risk of falls for older people living with dementia and thus help them to live longer in their own home, there is currently not enough good quality evidence to recommend which technology is best placed to do this.
- Even though people living with cognitive impairment or dementia have a higher risk of falls, and could benefit from fall prevention technology, they are often excluded from such studies. Some evidence has shown that people living with dementia can find the use of technology systems unsettling and may become distressed or refuse to use the technology.
- Utilising digital technology to enable older people living with dementia to remain independent in their own home for longer, or to prevent falls amongst older people in residential or nursing care, has been posited to improve quality-of-life and provide cost reductions to health and social care support. However, to date there is a lack of robust evidence supporting this. This is a fast moving and evolving evidence base, but it is essential new technologies are proven using robust evaluation in relevant contexts, with intended end users, before recommendations regarding their use can be made.

1. Benefits of Using Prevention Based Falls Technology - AllyCares
2. Digital technologies to prevent falls in people living with dementia: a rapid review. display.aspx (Manchester University)

Falls prevention pathway: The focus should be on the integration process of our local services and partnership working



Important to assess what works well in terms of (i) pre-assessment (ii) referrals (iii) post-fall case management (iv) high risk of falls and (v) in-reach & discharge