



Fall Prevention for Social Housing Tenants

Full Report

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Abstract

Trent & Dove piloted a year-long fall prevention project targeting tenants aged 60 and over. It demonstrated a 69% reduction in falls experienced by participants. The approach was based on raising awareness of the risks and consequences of falls and supporting tenants to implement personal prevention measures to reduce their risk.

181 people attended Fall Fighter awareness sessions including staff, tenants and community members. 161 tenants were visited at home and provided with fall prevention advice tailored to their individual circumstances.

High satisfaction and added value were reported by visited tenants. When surveyed, 90% knew more about fall prevention, 91% felt safer at home and 73% felt less likely to have a fall.

Face-to-face visits returned great value for tenants and Trent & Dove. Tenants were given information to promote autonomy and enable them to make timely, informed risk management choices. They were protected from unnecessary suffering by early intervention on physical and psychological issues. Trent & Dove benefited in turn by reducing the impact that falls and poor risk management would have otherwise had on their property, people, and communities.

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1. Introduction

Falls can affect people of any age but the elderly are more likely to fall and suffer serious injury as a result. National statistics suggest people aged 65 have a one in three chance of having a fall every year, increasing to one in two by age 80 (NICE 2013). Annually falls at home result in around 6,000 deaths, 4 million hospital bed days and many more unreported injuries in England alone (Trembl *et al.*, 2011).

Falls can result in physical injuries requiring hospital treatment including broken bones, serious bleeding, head injury or disability as well as minor injuries such as scrapes and bruising. By focusing exclusively on the physical effects however, it is possible to overlook the wider impact on peoples' lives. Loss of confidence may be as disabling as a physical injury and many people who have fallen report fear of subsequent falls which deters them from returning to regular activities (Jefferis *et al.*, 2014). The fear itself has been shown to make individuals more likely to experience a fall (Asai *et al.*, 2022). Lost independence results in an increasing reliance on community support and social care.

The consequences of falls impose a significant cost on society, not least through demand on health and social care services. Falls account for 80% of hospital admissions for accidental injuries in the over-65s at an annual cost to the NHS of £2.3 billion (NICE 2013). In the year after a fall, a person's hospital, community and social care costs can exceed four times the initial hospital admission cost and can represent an increase of 160% on their community care costs alone, (Tian *et al.*, 2013). The total societal cost is difficult to estimate as falls can have complex and far-reaching effects. After falls, people may be forced to change the roles that they are able to fulfil within society, for example they may cease voluntary work, withdraw from social activities and be unable to help with childcare. These changes may be short lived or have long-lasting implications. They can impact on quality of life, contribute to the development of social isolation, loneliness, and loss of independence. This places additional pressure on family and friends, and negatively impacts communities and wider society.

Despite the prevalence and potentially devastating consequences of falls, there are simple, effective, and low-cost control measures that can reduce their likelihood and severity. Community-based fall prevention teams composed of nurses, physiotherapists, and occupational therapists are frequently engaged after a fall, particularly if hospitalisation has been necessary. By this time, unfortunately there is an inherently greater risk of subsequent falls for that individual (Bergen *et al.*, 2016). The interventions offered at this stage include home assessment and modification, strength and balance training, and proactive management of faculties, medication, and health conditions that can increase fall risk like diabetes, dementia and postural hypotension. Delivering tailored fall prevention advice and interventions, akin to those received by fallers, ahead of the first fall is uncommon as services are typically reactive and focussed on fallers.

Non-fallers can access fall prevention services via enquiry to NHS and Local Authorities. This route is heavily reliant on self-referral which, as demonstrated by Shakespeare Martineau’s Moving On report (2023), is intrinsically unreliable when it comes to identifying oneself as at risk of a fall. In some cases, people may be persuaded to engage with fall prevention services prior to a fall event by friends or relatives. However, many people accept falls as an inevitable part of getting older.

Fall prevention services that are oversubscribed or have long waiting lists undoubtedly deter individuals from proactively seeking to reduce their risk of having a fall. This obstacle is likely to be felt more so by non-fallers who may already feel underqualified for support.

Equipment provided by fall prevention services following home assessment (e.g. grabrails, steps, ramps) is available commercially. People may favour this approach as a quicker, more autonomous route of support, offering greater choice but it may be unaffordable for low-income households.

Mobility aids such as sticks, crutches, and wheeled frames (walkers) provide support and balance when walking. They compensate for poor muscle and joint strength, coordination and endurance, and are especially useful for walking in open space when other supports are unavailable. Some walkers feature a seat providing a place to rest if the user needs it which can boost confidence.

Effective support from mobility aids often relies on arm and grip strength. As such an inappropriate aid or improper use can lead to increased likelihood of falls (Andersen *et al.*, 2007). Sticks and walkers can interfere with functional tasks requiring use of the hands and may also cause a trip hazard or impair balance if stuck against obstacles (Bateni & Maki 2005; Stevens *et al.*, 2009). Mobility aids are commercially available, prescribed by fall prevention services or provided upon discharge from hospital. Many physical and psychosocial factors affect selection and use of mobility aids.

General fall prevention advice is widely available from health services and charitable organisations via a variety of media including websites, leaflets, and helplines. The advice is prescriptive, covering individual and environmental risk factors and highlighting the multifactorial causes of falls. The most common causes of falls are summarised below:

Individual risk factors	Environmental risk factors
Muscle weakness or poor balance	Slippery or uneven floor surfaces
Deterioration of eyesight or hearing	Mats and rugs
Poor sinus or inner ear health	Clutter and trailing cables
Taking multiple medications	Stairs/steps without secure handrails
Dehydration and poor diet	Irregular stairs/steps
Incontinence	Poor lighting
Poor footwear	Pets

There is an intensifying focus on fall prevention for older adults as, with aging populations, the financial impact of falls and harm to quality of life grow. The Royal Society for the Prevention of Accidents (RoSPA) launched a fall prevention campaign called 'Fall Fighter' in 2022 (www.rosipa.com/falls). The campaign aims to reframe falls as preventable rather than an inevitable part of aging. They produced free training materials designed to educate people about the risks and consequences of falls and introduce the control measures which can be implemented to reduce the risk.

2. Project Conception

Based in East Staffordshire, Trent & Dove are a social housing provider with approximately 6,300 affordable properties including 4 sheltered housing schemes. At the 2022 RoSPA Awards, Trent & Dove were awarded the Sir George Earle Trophy, the highest accolade in the Awards. Trent & Dove pledged to create a winner's legacy in partnership with RoSPA by designing and delivering a fall prevention project aligned with the 'Fall Fighter' campaign.

At project commencement over 2,100 people living in Trent & Dove properties were aged 60 and over, approximately 25% of the total number of tenants. Bungalows, flats, houses and sheltered scheme accommodation (managed flats and communal space designed for over-55s and vulnerable people) were occupied by tenants aged over-60.

Before embarkment on this project, the Health & Safety Team's interaction with tenants had been typically limited to the investigation of work-related accidents or those occurring in communal areas. Incidents taking place 'behind-the-front-door' were seldom reported and when they were, this was usually linked with a request for an adaptation. As such there was no baseline data on the prevalence of falls amongst Trent & Dove tenants in the home.

However, social housing tenants include some of the most vulnerable people in society, with low-income and poorer health outcomes (Wheatley, 2015) so equal or higher rate of falls compared with the general population was anticipated.

This project aimed to develop awareness of the risks and consequences of falls in older people living in Trent & Dove homes and support them to implement personal prevention measures to reduce their risk of experiencing a fall. This aim was to be achieved through two main workstreams: educational sessions for tenants, staff and community groups; and home visits to help older tenants identify and address fall hazards. The project was promoted through Trent & Dove's website, social media channels and existing community engagement touchpoints.

3. Method

3.1 Fall Prevention Awareness Sessions

3.1.1 Fall Fighter Training Materials

The Fall Fighter training materials, developed by RoSPA and RSA Insurance Group, are designed to equip people with the knowledge and confidence to identify and address fall risks in their own homes and those of loved ones. The resources are being promoted across the country as part of RoSPA's own fall prevention campaign. Training can be completed on-line by individuals, and organisations are encouraged to use the resources as they see fit within their own workplaces and beyond.

The presentation material was used by Trent & Dove's Customer Health & Safety Advisor (CHSA) as a central element of the awareness sessions for tenants, staff and community groups. Slides were shown on a big screen and explained and elaborated on. A roller banner designed in-keeping with the Fall Fighter materials was displayed to promote sessions to passersby and *ad hoc* attendees.

3.1.2 Sheltered Schemes

Starting with tenants living in Trent & Dove's four sheltered housing schemes, the sessions ran for approximately an hour allowing for questions, solution sharing and informal feedback. The scheme sessions were advertised by word-of-mouth and on noticeboards by Scheme Managers and held in respective scheme lounges with scheme residents being predominantly the participants.

In-person delivery of the materials allowed for individual needs to be better catered for i.e., being able to sit closer to the presenter if hard of hearing or partially sighted. It also negated need for technological competence among attendees required to complete the course on-line. The sessions were organised to coincide with regular existing events (e.g. coffee mornings) to reach participants that may not have otherwise attended the training event.

3.1.3 Community Groups

A dementia Carers' Café and a ReBalance seated dance class requested Fall Fighter sessions to be delivered at their respective meeting venues. Attending groups during their regular meeting times allowed sessions to reach individuals who may not have elected to attend, improving the spread of knowledge.

3.1.4 Trent & Dove Staff

The Fall Fighter training materials were also adapted and delivered to Trent & Dove staff. The objectives were twofold. Firstly to provide staff with knowledge that they could use to help prevent falls at home for their family and friends. Secondly to use their existing contact points with tenants to identify those at risk of falls and make referrals for a home visit. The training material adaptations included:

- Adjusting the call to action to helping spread awareness and promote the fall prevention project to tenants;
- Replacing terms like 'your loved ones' with 'our tenants';
- Adding images of the Trent & Dove check sheets which were developed for fall prevention home visits;
- Inserting the project contact details and website information.

Flyers with a brief description of the project and contact details (Appendix A) were distributed to frontline staff. The staff were encouraged to give flyers to anyone they deemed at risk of having a fall. Flyer design was sympathetic to visual impairment, using large, non-stylised font and plain backgrounds. Flyers were also available from Trent & Dove's community engagement vehicle 'Coffee Connect' that visits neighbourhoods across East Staffordshire.

3.2 Home Visits

Home visits were a key workstream within this project intended to provide tailored fall prevention advice and help tenants identify and address risks in their homes and associated with their health and lifestyle.

Tenants aged 60 and above were targeted for visits as they are statistically more likely to have serious falls. They are also classed as a vulnerable group to slips, trips and falls in the Housing Health & Safety Rating System (available online, see References) – a government risk assessment tool used by Local Authorities to identify and protect against hazards and risks in dwellings.

3.2.1 Communication

Consideration of the impact of technology barriers was given to all aspects of the project. Elderly social housing tenants have many of the characteristics associated with digital exclusion and low uptake of digital communication methods, including income, age, education, and social mobility (Winchester, 2009). The reliance on digital communication was minimised to reduce the bias that these factors could have on the project and participants.

Postal invitations (Appendix B) were used to provide a description of the project and invite tenants to respond to a dedicated phone number/email address to book a home visit. Between September 2022 and March 2023 all tenants aged 60 and over were sent

a letter. The letters were sent in waves according to age group (oldest to youngest), then by area postcode to minimise the travel time between visits.

Trent & Dove social media channels and website were used as additional methods of advertising home visits. Posts on social media were aimed at friends and relatives of the target demographic, who might make a referral on a tenant's behalf. The posts focused on remaining independent, staying healthy and active for longer, and identifying someone who could be at risk.

A dedicated fall prevention webpage (Appendix C) was developed providing information about the project. It featured a promotional video describing the project and an electronic form where tenants could request a call-back for information or to arrange a visit.

3.2.2 Visits

All tenants that responded were visited, typically within 2 weeks of initial contact. Home visits were carried out by the CHSA at a time to suit the tenant. Flexibility of visit arrangements was particularly important for tenants for whom English was not their first language, or had sensory or cognitive impairment, who benefitted from having a friend or relative with them for the visit.

The visits lasted around an hour and involved a structured conversation between CHSA and the tenant, or couples, at their property. Using specifically designed check sheets, the main causes of falls at home and the associated potential risk control measures were introduced. The CHSA identified areas for better risk control and advised appropriate control measures based on information shared by the tenant(s). Advice was recorded on the check sheet and later summarised as visit 'advisories' on a recommendations sheet.

All paperwork was left with the tenant for their reference and to potentially share with family members, carers etc. The CHSA photographed the check sheets and recommendations to collate data back at the office.

Data was also collected to establish a profile of the tenants who were visited. Tenants' ages, falls history over the 12 months prior to visit, mobility aid use, type of property occupied, number of bedrooms and extent of level-access were recorded on their check sheets.

Tenants' data was subject to the controls outlined in Trent & Dove's GDPR policy. Consent for data collection was provided verbally during the visit before any data capture took place. PIN and password protected devices were used and data was anonymised.

The check sheets (Appendix D) were adapted from materials developed by RoSPA and RSA Insurance Group, available from RoSPA's Fall Fighter campaign website. The design was adapted to improve accessibility by increasing the font size and colour contrast.

The fall risk factors encompassed by the check sheets were expanded to include diet and hydration, hearing, footwear, use of nightlights and bathmats, and the condition of staircases.

Individual risk factors (related to tenant health and lifestyle) and environmental risk factors (related to the rooms and garden) were split onto separate pages. This helped to promote ownership of resulting individual control measures, which were exclusively within the tenant's control. The individual check sheet was completed first to inform appropriate environmental controls for the household. Visits to cohabiting tenants generated one shared environment check sheet, but an individual check sheet for each person.

3.2.3 Advice Given During Visits

Each section of the check sheets acted as a prompt and the CHSA explained each factor tailored to the circumstances of the tenant(s) present during each visit. Emphasis was placed on finding a level of control which was reasonable, appropriate and achievable for each factor. Advice was subjective and needs-based, so a framework (Appendix E) was used to ensure a consistent approach for suggesting control measures. The measures in the framework were derived from information gathered from the NHS website, NICE guidelines and materials produced in association with Chartered Society of Physiotherapy and UK Health Security Agency (see References). Advice or 'advisories' were given with consideration to cost, effectiveness and availability of control measures to tenants.

Tenants under the supervision of medical specialists (e.g. physiotherapist, nutritionist, cardiologist, diabetes/stroke/dementia nurse) were also reminded to follow the guidance of those specialists above that of the CHSA and discuss fall prevention advisories with the specialist before undertaking any changes.

Input from Trent & Dove's Occupational Therapist, Tenancy Sustainment and Repairs Team informed the extent of support available from Trent & Dove. Networking with community partners and fall prevention services developed throughout the project providing further options for advice and risk control measures to be shared, for example, details of the local Diabetes UK free support group.

3.2.4 Visit Data Processing

Data was manually transferred from the photos of completed check sheets to a spreadsheet. Advisories were categorised using the section of the sheet they arose from.

The advisories requiring Trent & Dove action were either emailed to the appropriate department or logged on the company electronic customer management system, CRM. CRM was also used to track the costs of repairs and property modifications.

3.2.5 Evaluation of the Impact of Visits

Feedback on the impact of home visits was gathered using a telephone survey (Appendix F) designed to assess whether the project had achieved its aim of:

'developing awareness of the risks and consequences of falls... and supporting tenants to implement personal prevention measures to reduce their risk of experiencing a fall.'

To minimise response bias, surveys were conducted by Trent & Dove staff other than the CHSA. Surveys took place at least 3 months after the visit to allow time for advisories to be acted upon and impacts of any changes to be realised. For tenants with special communication needs the survey was posted or emailed to them, or their elected contact.

A mixture of quantitative and qualitative feedback was collected. Tenants were asked how many falls had taken place since their visit and all additional literal comments were recorded. There were also five questions with Yes/No/Unsure options related to knowledge of fall prevention, feelings about falls and safety at home and changes made to the home since the visit.

Attempts were made to survey all visited tenants, except for 17 tenants whose visit dates were within 3 months of the project close date. 44 tenants were unreachable, declined the survey, or had terminated their tenancy since the visit.

4. Results

4.1 Fall Prevention Awareness Sessions

Between September 2022 and April 2023, 11 fall prevention awareness sessions were delivered reaching 181 people in total. Sessions took place at Trent & Dove offices and sheltered schemes, the ReBalance seated dance class and dementia Carers' Café both held at Brewhouse Arts Centre in Burton-on-Trent. 72 session attendees (40%) were Trent & Dove staff members and 109 (60%) were tenants and other members of the communities that Trent & Dove serve.

Some staff who attended made referrals for tenants they later identified as at risk of a fall. Referrals were received from Scheme Managers (3), Occupational Therapist (4), Tenancy Sustainment Team (2), Health & Safety Team (6), Befriending Team (3) and Customer Services (1).

Anecdotal feedback on the sessions was very positive. Attendees were complimentary of efforts to combat fall risk, many having experienced falls themselves or known someone suffering the serious consequences of a fall. Usually following the presentation, a discussion about the practical help and local support pathways available to attendees took place. Sharing this information was valued by attendees. Staff reported personal and professional

applications for the training, it allowed them to support friends and family to address fall risks as well as being better able, in a professional context, to recognise tenants at risk.

4.2 Home Visits

4.2.1 Responses

Between September 2022 and May 2023, a total of 2048 letters were distributed to tenants by post and hand delivered to scheme tenants. 187 responses were received by phone, email, web enquiry and via Customer Services. The majority were received by phone to the contact number provided in the letter. The proportion of tenants that were sent a letter who booked a visit increased with age (Appendix G: Chart 1).

161 responses resulted in completion of a home visit. Other responses were:

- To request visit then fail to confirm date and time (10)
- To decline involvement in the project (7)
- To request a visit at a later date (6)
- To book a visit which was later declined (1)

4.2.2 Tenant Profile

The profile of each tenant visited was defined using characteristics of age, fall history in the 12 months before their visit, reliance and type of mobility aid used (if any), type of property occupied, extent of level-access, and number of bedrooms. An understanding of the profile, and any biases or areas of weakness in the data, aided interpretation of data and lead to more robust conclusions.

4.2.2.1 Age

The average age of tenants visited was 78. Their ages ranged from 60 to 98 and was normally distributed as shown in Appendix G: Chart 2. Tenants aged 74 and over made up the majority (69%) of participants despite representing a smaller proportion (42%) of the target demographic.

4.2.2.2 Falls History

The number of falls experienced by tenants in the 12-month period before the home visit was recorded as a baseline for comparison. The greatest number of falls experienced in 12 months was 10. The average number of falls experienced in 12 months prior to the home visit increased with age (Appendix G: Chart 3). 55% of tenants had experienced a fall in the 12 months before their visit. The proportion of fallers (tenants who experienced one or more fall), and average number of falls they experienced, generally increased with age (Appendix G: Table 1). Tenants identified and referred by Trent & Dove staff reported experiencing an above average number of falls for their age compared with other tenants.

To compare the Trent & Dove participants with national fall statistics, data was segmented into the age groups 65-79 and 80+:

Age 65-79

50% of tenants had experienced a fall, exceeding the NICE (2013) national statistic of 1 in 3 (33%) of over-65s experiencing at least one fall annually.

Age 80 and over

63% of tenants had experienced a fall, exceeding the NICE (2013) national statistic of 1 in 2 (50%) of over-80s experiencing at least one fall annually.

4.2.3 Mobility Aid Use

96 tenants visited (60%) used a mobility aid. Mobility aid use was more common amongst older tenants. Those who used a mobility aid experienced more falls, particularly those who relied on mobility aids indoors, than those who did not (Appendix G: Chart 4). It was more common amongst older tenants for mobility aids to be used indoors as well as outdoors.

There was greater variance in falls experienced by tenants using crutches who on average experienced more falls than those using other types of mobility aids.

The two most popular aids were a stick and walker, a 3- or 4-wheeled frame, (Appendix G: Chart 5). Use of multiple types of mobility aid was also common, in these cases the type of aid used most frequently was recorded.

4.2.4 Property Type

Level-access properties tended to be occupied by older tenants compared with properties that had steps. The average age of tenants living in level-access properties was 80 compared to average age of 77 for step access property occupiers. Over a third of properties visited were bungalows (Appendix G: Chart 6) which were a combination of step and level-access.

The average age of tenants varied between property types. Older tenants favoured scheme flats though there was a larger variance in tenant age living in scheme flats compared with other property types (Appendix G: Chart 7). First floor flats were favoured by younger tenants, however this property type represented just 4% of the properties visited.

4.2.5 Number of Advisories

On average the total number of advisories decreased slightly with age (Appendix G: Chart 8). When separated into individual and environmental sections, the reduction in quantity of advisories can be attributed mainly to fewer environmental advisories given with increasing age.

On average, fallers received a greater total number of environmental and individual advisories than non-fallers. The difference was more pronounced in environmental than individual risk advisories (Appendix G: Chart 9).

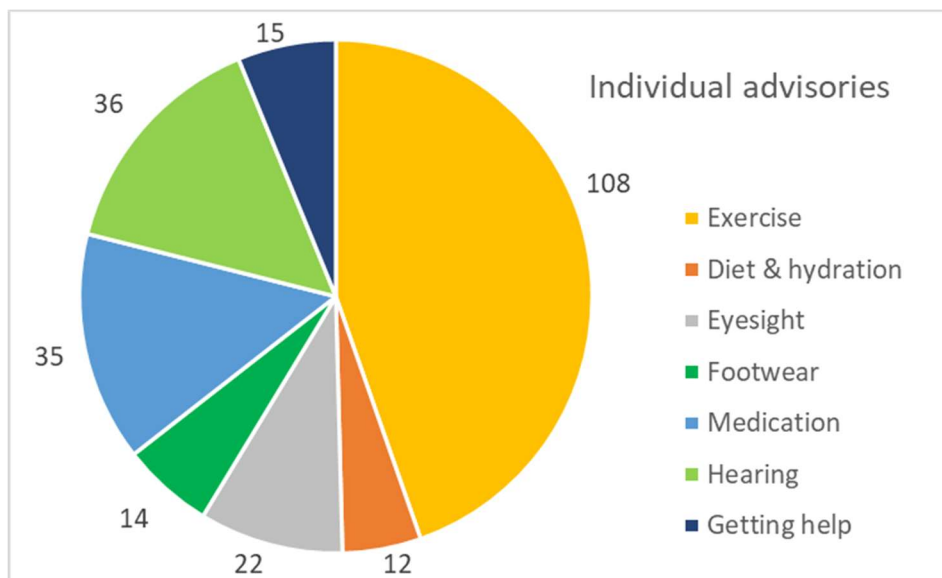
The number of environmental advisories varied with the type of property visited (Appendix G: Chart 10) with fewest resulting from visits to scheme flats.

The number of individual advisories was generally consistent regardless of property type.

4.2.6 Individual Advisory Categories

A total of 242 individual advisories were given across all visits. Increasing exercise was the most common, comprising 45% of the total (Figure 1). Other frequent individual advisories were for the timely review of medication and hearing tests.

Figure 1 - the proportion of total individual advisories accounted for by each category



4.2.7 Signposting

Recognising the limitations of the CHSA on complex or clinical issues was important to ensure tenants received appropriate advice and support. Some of the individual advisories involved engagement with existing services or community partners to improve control of the associated risk. Signposting to a specialist service and tackling any obstacles like finding a contact phone number if the tenant had no internet access, was a straightforward task which could normally be done during the visit.

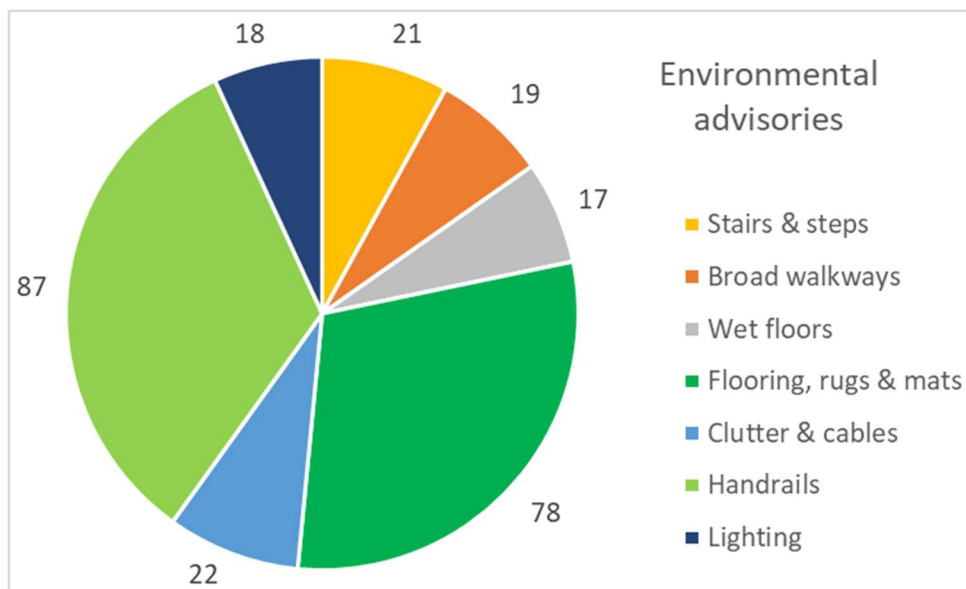
In more complex circumstances, the CHSA consulted with the Trent & Dove Occupational Therapist and could make referrals to the NHS falls team. These options were communicated to the tenant after the visit and carried out by the CHSA in line with the tenant's wishes.

Services which were signposted included GPs, pharmacists, opticians, audiologists, podiatrists, specialist footwear suppliers, telecare providers, charitable support groups (e.g. Diabetes UK, RNIB), local seated exercise/dance classes and online NHS resources for strength and exercise videos.

4.2.8 Environmental Advisory Categories

A total of 262 environmental advisories were given across all visits. The need for additional handrails, grabrails and banisters was the most common environmental advisory comprising 33% of the total (Figure 2). This category included provision of supports to reduce the risk of falling on internal and external stairs and steps, and when using toilet and bathing facilities.

Figure 2 - the proportion of total environmental advisories accounted for by each category



Flooring, rugs, and mats was the second most common environmental advisory. The remaining third of environmental advisories involved improving the condition of stairs and steps, minimising and managing incidence of wet floors, broadening walkways, improving light levels, and reducing the number of trip hazards from cables and clutter.

Some environmental advisories also involved signposting: flooring and carpet fitters, Medequip commercial branch 'Manage at Home', local council for Blue Badge and the Trent & Dove volunteers for gardening and help to declutter.

4.2.9 Cost of Property Repair and Adaptation

86 repairs and adaptation tasks resulted from home visits costing Trent & Dove £4,798 in total. The greatest single cost was £790 paid for contractors to install 4 metres of external handrail to support independent access to a bungalow. The average cost per

property was £63.13. 56% involved installation of handrails, and 27% were flooring repairs.

A small number of tasks unrelated to fall prevention were also logged following visits, for example surveying damp and mould, and the removal of a nest from a loft space (that had gone unnoticed due to the hearing impairment of the tenant).

4.3 Feedback

Feedback was gathered from 98 tenants representing 61% of the total participants. The survey was conducted between 100 and 182 days after the visit, on average 143 days after the visit. The profile of tenants who provided feedback was representative of those visited.

4.3.1 Quantitative Analysis

For each respondent, the number of falls experienced between visit and survey date was extrapolated to give a forecast for the next 12 months. This was achieved by multiplying the number of falls experienced between visit and survey date by the inverse factor of the proportion of the year that had elapsed (equation below). The forecast was then compared with the number of falls experienced in the 12 months before the visit to predict how many falls had been prevented.

Equation 1: Calculation of number of falls forecast to be experienced by a tenant following home visit using the number of days elapsed between visit and survey dates

$$\text{Falls forecast in following 12 month} = \text{Falls between visit and survey date} \times \left(1 \div \frac{\text{survey date} - \text{visit date}}{365} \right)$$

This approach also enabled the fall reduction trend to be examined to identify characteristics of those who benefitted most from the visit. However, no benefit could be measured for non-fallers who reported zero falls in the 12 months before the visit. For them only a neutral or positive trend (an increase in falls) was possible.

There was an overall 69% reduction in the total number of falls experienced by respondents - a total of 157 falls experienced in the 12 months before visits decreased to 48 falls forecast for the 12 months after.

The greatest reduction of falls was measured for tenants who had been experiencing the most falls prior to the visit (Appendix G: Chart 11). 48 of 55 fallers (87%) experienced a reduction in falls and 96% of those 48 tenants had experienced no falls between the visit and survey date.

Despite the fall prevention visit, 12% of non-fallers experienced a fall in the time between the visit and survey date. Though this is lower than the national statistics of 33% for over-65s and 50% for over-80s, differing timeframes prevent a direct comparison.

The time between the visit and survey dates was analysed against the fall reduction trend. Unexpectedly, the more days that had passed since the visit the greater the reduction in falls. (Appendix G: Chart 12).

There was no correlation between the falls trend and total number of advisories given following a home visit (Appendix G: Chart 13).

Scheme flat tenants measured on average the greatest reduction in falls (Appendix G: Chart 14). Tenants of first floor flats experienced the smallest reduction in falls which could be attributed to age, as those tenants were generally younger so less likely to be a faller.

4.3.2 Qualitative Feedback

5 questions with Yes/No/unsure response options were posed and literal comments were also recorded.

[Question 1: Do you know more about fall prevention after the home visit?](#)

90% of respondents said they knew more about fall prevention after the home visit. Negative respondents were generally younger and had experienced a smaller reduction in falls. One negative response was from a tenant who had experienced a pronounced increase in falls since the visit due to a worsening medical condition.

[Question 2: Do you feel less likely to have a fall at home because of the visit?](#)

73% of respondents said they felt less likely to have a fall at home because of the home visit. If the respondent had experienced a fall since the visit they were more likely to give a negative response. But two respondents that had fallen since the visit answered 'Yes' suggesting the number of falls experienced doesn't give the complete picture of tenants' feelings about fall risk.

[Question 3: Since the visit have you taken action to reduce your risk of falling?](#)

74% of respondents said they had taken action to reduce their risk of falling since the visit. 34 of the 73 tenants who said they had taken action had received a property adaptation or repair in Question 4. Of the respondents who said they didn't know more about fall prevention in question 1, 50% said that they had taken action to reduce their risk of having a fall.

[Question 4: Have you had a property adaptation or repair to reduce your risk of falling?](#)

44% of respondents said they had received a property adaptation or repair since the visit. 90% of the respondents who had had a property adaptation or repair reported feeling safer at home in question 5.

[Question 5: As a result of the home visit, do you feel safer at home?](#)

91% of respondents said they felt safer at home as a result of the home visit.

- 83 of 89 respondents who responded positively also said they knew more about fall prevention.

- 19 said they felt safer at home despite not feeling less likely to have a fall at home.
- 20 respondents said they felt safer despite not having taken action to reduce fall risk.
- 49 said they felt safer despite not having had a property adaptation or repair.

4.3.3 Additional Comments

At the end of each survey, the tenant was asked if they had any additional feedback on the home visit they had received. Verbatim comments are listed in Appendix H.

Over half of respondents provided additional feedback. Most used the opportunity to express their thanks for the visit. There was a clear appreciation of the time spent with them and that a member of staff came to visit in person. Many interpreted this as a clear demonstration of caring from Trent & Dove. 'Helpful' was used often to describe the visit and advice. Occasionally tenants shared details of what they had found beneficial. Some tenants said that the visit had put their mind at ease and that it had been informative, others praised the initiative and demanded that it continue so tenants could continue to benefit.

3 tenants used the opportunity to provide details about falls they had experienced since their visit and a further 2 spoke about work that they are still waiting to be done at the property they occupy.

5. Conclusions and Discussion

5.1 Project Participation

The perception of risk affected participation with the project. Finding ways to help tenants relate to fall risks and take preventative action earlier, before their first fall, should be a focus for future work.

The total number of tenants who attended Fall Fighter sessions or had home visits represents only a small proportion of the target demographic. Engagement improved over time as it was bolstered by internal and external word-of-mouth. Additional sources of referral arose as awareness of the project spread through the community. A permanent fall prevention workstream would improve engagement with other agencies and support services.

Better participation by older tenants was perhaps due to having already fallen or witnessed the detrimental impact of falls on their peers. However, similar participation from fallers and non-fallers suggests that the perception of fall risk may also have influenced participation.

5.1.1 Communication with the Target Demographic

Paper based communication enhanced participation, knowledge sharing and helped to overcome digital exclusion.

Letters were generally well-received with only one tenant calling to request no further contact from the project. An unanticipated benefit of the postal invitations was that where a friend or family member was taking care of a tenant's post, they were usually well-positioned to assess that tenant's need for a home visit and convince them to engage. Combined with the emphasis on the visits being free, this undoubtedly led to a greater uptake than might have been gained from self-referral alone.

In a handful of cases, a relative organised a visit on the tenant's behalf. This sometimes negatively affected the tenant's willingness to engage during the visit. In the most extreme example, the tenant refused the visit at the doorstep.

Using paper check sheets rather than a digital form helped build rapport and trust between the CHSA and tenant, as it allowed them to see what was being written, feel more involved with the advisories and look at infographics on the sheets. Building trust was crucial as it enhanced information shared by the tenant particularly on sensitive topics like medication. Leaving the paper copies with the tenant promoted ownership of advisories, provided a memory prompt, and encouraged knowledge sharing with friends, relatives, and carers. The paper-based approach also removed any potential alienation or cynicism stemming from use of digital technology.

5.1.2 Assessment of Risk

There was generally poor understanding of risk factors associated with falls, even from those who had experienced falls. Subsequently, tenants would not necessarily engage with proactive fall prevention work.

It is likely that participation was suppressed because many tenants view falls as an inevitable part of aging. This perception encourages complacency and acceptance of the risk. It may be stopping tenants from seeking support even when they experience falls, so obstructing opportunities for improved risk control.

Even though some tenants said they had already received fall prevention intervention and so felt the home visit might be wasted, only 2 tenants had no advisories following their home visit. This shows that risk control could almost always be improved using the simple measures included in this project's framework.

Some tenants were reluctant to accept advice or make changes, viewing suggestions as excessive for the risk they perceived. This further highlights the weakness of self-assessment to identify risk and supports the findings of Shakespeare Martineu (2023) that self-assessment of fall risk is unreliable. As such, the design of future fall prevention work should minimise its reliance on self-assessment for participation.

5.2 Prevention of Falls

A 69% reduction in total number of falls experienced by tenants after a home visit exceeded the expectations of the project. The reduction was experienced across property types, ages, and mobility aid use, and was not isolated to a specific group of tenants. The greatest reduction in falls was experienced by tenants who were having the most falls prior to their visit.

87% of fallers reported a reduction in the number of falls they experienced - only a small minority reported any falls after the home visit. This large reduction presents a substantial challenge to the perception of falls as an inevitable part of aging and so to the acceptance of fall risk in a domestic setting.

There was a larger reduction in falls trend with increasing number of days between survey and visit. This indicates that visits and resulting advisories had a lasting effect on tenants. It shows that the reduction in number of falls extends beyond where the initial enthusiasm for risk reduction might be expected to fade. These findings support the value in working with tenants to find practical control measures that they can maintain. Spending time explaining concepts of risk management that tenants can apply to changing circumstances is likely to have long-term impact.

Despite living in property designed with limited mobility in mind, scheme tenants on average experienced most falls in the 12 months before their visit and measured the greatest reduction. These tenants were generally older, so statistically more likely to experience falls, and likely to live in a scheme flat because of a desire to eliminate environmental risk posed by the home environment. The large number of falls experienced before visits highlights the need to support tenants to address a wider scope of individual fall risk factors rather than relying on controls inherent in property design. The reduction may also have been boosted by Fall Fighter training sessions held at schemes or positive reinforcement of advisories by Scheme Managers or relatives/friends/carers.

A correlation between the number of advisories and reduction in falls was expected, particularly as more advisories were generally given to fallers. However, no such link was observed suggesting that the focus should be on quality of advice rather than quantity to achieve a reduction in falls. It highlights the importance of understanding individual circumstances and providing bespoke advice instead of trying a one-size-fits-all solution. Furthermore, tenants who reported feeling safer had not necessarily received a property adaptation/repair. This supports the need for tailored adaptation rather than fitting grabrails indiscriminately.

Tenants of first floor flats experienced the smallest reduction of falls which could have been attributed to age. These tenants were generally younger and fewer were fallers, so reducing the possibility of a reduction in falls. However, the property type was under-represented in the data set comprising only 4% of properties visited, so this observation may not be wholly conclusive.

Experience of falls may influence a tenant's property choice. Feeling at high risk of falling may prompt a tenant to downsize to a property which poses fewer physical challenges (e.g. has level-access). However, some tenants were reluctant to downsize from a property which posed numerous environmental risks and was unsuited to their needs (e.g. 3-bedroom family homes with a staircase and step access).

Except age and fall history, no other characteristic of the tenant profile could reliably predict the benefit that a tenant would gain from the visit.

5.3 Risk Reduction

Considering individual circumstances and involving tenants in the selection of their risk control measures appeared to improve acceptance. Value was added to the visits by introducing risk management concepts to underpin advisories.

5.3.1 The Approach to Risk Reduction

Advisories were specific to individual circumstances and proportionate to the risks. The check sheets facilitated an objective and consistent approach, helping inform appropriate control measure selection. The wider implications for each advisory had to be weighed against individual circumstances. For example, increased activity and daily walking would provide a fall risk reduction for most individuals by improving core and leg muscle strength. However, the implicit risk of this activity may outweigh its benefit for some, particularly tenants who were prone to falls, very unsteady, or didn't have a safe area to walk in. Summarising the advisories to the recommendations sheet at the end of the visit provided an opportunity to review them with consideration to all aspects of the visit.

In the domestic setting, the tenant's impetus or intervention from family/friends are the only driving force for continued control of hazards. So ensuring that advisories were accepted by the tenant(s) as reasonable, practical, and affordable was a consideration in control measure selection. Some tenants approached the visits with a particular property adaptation in mind and, whilst this was sometimes agreed by the CHSA, it would not have provided the best risk control in all cases.

Conducting a rational discussion about the need and practicality of significant property adaptation (e.g. installing a wet room or level-access ramp) from a safety perspective was crucial. Through empathy and having developed a rapport with the tenant(s) during the visit, they could be reassured that a considered and well-informed decision was made with their best interest at heart. Downsizing or moving into a property better suited to the tenant's needs was often discussed at this point if it offered the best control of fall risk.

5.3.2 Introducing Risk Management Concepts

The CHSA helped tenants examine any past fall events to identify and address root causes. Some tenants were unfamiliar with hazard and risk assessment concepts and it was useful to discuss balancing hazard and risk with other factors. For example, when using a doormat on a hard floor the CHSA drew attention to the compromise being made between slip control and trip risk. Rugs prompted a discussion about the safety compromise made for the aesthetics or comfort. Then risk management examples were suggested e.g. ensuring the mat had non-slip backing, was of contrasting colour to the floor and didn't curl at the edges.

Learning lessons from near misses was usually discussed using flooring for context. The CHSA explained how near misses in the workplace help to identify hazards and prompt action to control risk and avoid serious accidents.

Tenants were urged to be pragmatic about risks at home and the visits usually concluded with tenants in a better position to apply risk management concepts that they had learned.

5.3.3 Property Influences

Visits to scheme flats produced the fewest environmental advisories. It was rare for additional adaptations to be needed because the flats were designed for limited mobility. The tenants have also often moved to scheme flats to reduce inherent risk to them posed by their environment, so tended to address environmental risks more proactively. A greater number and variance of environmental advisories resulted from visits to houses and first-floor flats which could be attributed to more risk control opportunities presented by steps and staircases.

The relationship between a property's characteristics, the environmental risk factors and resulting falls is complex. The inherent risks are personal to the occupying tenant(s). A larger data set is required to draw firm conclusions on the influence of property characteristics in fall prevention.

5.3.4 Personal Influences

The number of individual advisories remained relatively consistent across all age groups. This could be attributed to people implementing increasing number of control measures themselves as they age, either independently or with support from services like the NHS.

The tenant's inclination to make changes for their safety is likely to be influenced by the attitudes of family/friends/carers to risk. If the tenant were more reliant on their support this influence would be greater, be it positive or negative.

Psychosocial factors were significant in influencing acceptance of advice or new control measures. Many tenants reported a reluctance to start using a mobility aid to maintain independence due to concerns about how they would be viewed by their peers or wider society. In contrast, some tenants were curious about different types of aid available and had experimented to find something which worked best for them having been influenced by peers. The same attitude was typically applied to property adaptations, particularly for highly visible changes like external grabrails. Tenants who had experienced negativity about addressing sources of risk were more likely to be living with risk and so result in more advisories from their visit.

Individual risk factors and their controls were generally less well understood by tenants and so not as well managed as environmental risks even by those who were risk averse. Management of hearing and inner ear health for improved balance and situational awareness; and a clinical review of medications especially any polypharmacy interactions/side effects (e.g., drowsiness, dizziness, and blood pressure fluctuations) were both little known controls for individual risk control. Increasing awareness of how these factors relate to falls, aids overall fall risk reduction.

5.4 Access to Support

Social housing providers can help tenants make timely, informed choices to reduce their risk of a fall by making information about support services available. It should be shared using a variety of media so it can be accessed by the most vulnerable tenants often in greatest need of support. Information must be reliable and up-to-date.

Signposting could spark the tenant's curiosity about other support services available to them. This comes with many advantages for both Trent & Dove and the tenants themselves. By enabling tenants to engage with necessary support, Trent & Dove can benefit from the financial, health and wellbeing gain of their tenants. For example, by enabling tenants to use a Disabled Facilities Grant to adapt property, Trent & Dove benefit without the cost of making the adaptation. Playing an active role in connecting tenants with this support and helping them through the process also yields good customer satisfaction.

5.4.1 Practical Considerations

Inconvenience and cost of services, the availability of appointments, and any negative past experiences, are all factors which affect tenants accessing support. For social housing tenants with lower household incomes, the cost of support may have an increased influence than would be expected in the general population. Tenants who rely on public transport or friends/relatives would have less flexibility to attend appointments particularly at unsociable hours or when arranged at short notice. If these factors delay tenants seeking or receiving support, they are likely to mean health conditions are less well-managed, exacerbating poor health outcomes.

A hesitancy to seek support can be fuelled by unwillingness to accept one's own frailty, feelings of embarrassment, or a lack of awareness of the support available. In the absence of this information, the worst-case scenario might be presumed; that seeking support would result in prescriptive and involuntary changes, eroding independence and autonomy.

5.5 Sharing Information

Unclear responsibility for the provision of support can delay or prevent tenants from making choices and taking action for their safety.

5.5.1 Responsibility

Tenants may be reluctant to pay for property adaptation if they think it should be free-of-charge. Their options may be further restricted by low income typical of the social housing demographic. As a result, they may tolerate risk to their safety including falls until the cost of adaptation is covered. To minimise this a clear support structure is needed. Clarity should be provided outlining which adaptations are the tenant's responsibility or, if needed, would be funded by Trent & Dove, Local Authority or NHS etc.

Helping tenants feel safe at home is a priority for Trent & Dove though the flow of information to tenants regarding significant adaptation appears restricted by the anticipated cost of delivery. Trent & Dove currently have an overstretched budget for property adaptations and furthermore there is no record of unmet demand. To inform the support structure and ensure costs can be met, it is important that all demand is recorded so it can be budgeted for accordingly. Combined with clear adaptation policy this will help tenants make informed decisions by providing clarity of the extent to which Trent & Dove will take responsibility for the adaptation.

As demonstrated in this project, small and inexpensive adaptations prevent falls and keep many tenants healthier for longer when used alongside health and lifestyle advice. By investing in early support, tenant needs could be met by 'general needs' property for longer, reducing the demand for more costly adaptations.

5.5.2 Downsizing

Trent & Dove does not modify 3-bedroom family homes for lone occupants. Some tenants were unaware of this at a time when they would have considered downsizing. Making tenants aware of their property's adaptation prospects so they can make time-sensitive decisions and relocate would allow better control of fall risks, and potentially free up family homes.

Removing other barriers like overreliance on web-based services and exclusively accepting applications to downsize online (excluding those without internet access) would help further.

5.6 Feedback

Respondents reported high satisfaction and perceived value of visits. Qualitative metrics gave a more complete picture of tenant experience after the visit when combined with fall prevention figures.

Survey questions were designed to reveal how the tenant's awareness and feelings around falls and home safety had been influenced by the visit, and whether it had prompted changes to lifestyle or their home environment. Responses also gave a measure of tenant satisfaction and perceived value of home visits. The combined feedback was useful because tenants had differing starting points of knowledge, risk control and scope for improvement.

Phone calls were used for the surveys as a communication method which provided best compromise between response rate, cost and time available to gather feedback. Two tenants did not remember the home visit when called to survey. 3 of 98 tenants answered negatively to all questions. Even so, 2 of these tenants experienced a reduction in falls and the other tenant was a non-faller who continued to avoid falls. The combination of qualitative and quantitative responses helps build a clearer picture of the tenants' experience and benefits from the visits.

5.6.1 Awareness of Fall Prevention

Increasing awareness of fall prevention not only empowers tenants to live more safely but the knowledge can be shared through communities for widespread benefit. 9 out of 10 tenants reported knowing more about fall prevention following a home visit. Those who did not were generally younger and experienced a smaller reduction in falls. However, half went on to say they had taken action since the visit to reduce their risk of falling at home.

5.6.2 Influence of Adaptation

Of the tenants who said they had taken action to reduce their risk of falling, less than half had had a property adaptation or repair, demonstrating the possibility of helping without direct expenditure by using existing services and signposting. 90% of tenants who had had a property adaptation or repair reported feeling safer at home. So, whilst it may not be necessary to make physical adaptations to boost feelings of safety, doing so generally does generate feelings of safety.

5.6.3 Feeling Safer

As might have been expected, there was a link between avoiding falls after the visit and feeling less likely to fall at home. However, two tenants who had had a fall since their visit still reported feeling less likely to have a fall at home. This could have been an inconsistent response, or could reveal the distinction between feelings of safety, perceived risk and actual safety and control of risk.

Tenants reported feeling safer for a variety of reasons. Some responses suggest that feeling safe at home was associated more so with being visited in-person by a safety professional, knowing more about fall prevention, and their improved relationship with Trent & Dove.

5.7 Added Value

5.7.1 Positive Perception of Trent & Dove

It is hard to overstate the value of delivering information in person and taking the time to understand individual circumstances, rather than using a leaflet, questionnaire, phone call or webchat. Many tenants expressed their gratitude for taking time to listen to them at the end of the visit. The care and respect implied by an in-person visit created an atmosphere of trust and compassion. This usually resulted in a positive interaction between the tenant and Trent & Dove regarding any advisories. A cheerful conclusion to the visit was possible using advisories even if the tenants' wishes (e.g. for specific adaptation) were not granted.

The benefits of a positive tenant perception of Trent & Dove may manifest as better satisfaction, greater patience, and good faith from the tenant during future interactions. It may also lead to mutual benefits like better engagement with support services and initiatives, and less resistance to compliance checks, investment works or retrofitting. The most financially rewarding benefit for Trent & Dove might be the tenant taking greater pride in or simply being healthy enough to better care for the property (and garden) they occupy.

5.7.2 Tackling Stigma

The stigma surrounding falls can prevent some older people from seeking help. Believing that nothing could be done or that it would inconvenience others, some tenants had experienced falls in the past but not told anyone or sought help. By providing visits aimed specifically at fall prevention, the inhibition of these concerns was removed. An empathetic and pragmatic approach provided reassurance to tenants which generally allowed them to overcome those barriers.

5.7.3 Beyond Fall Prevention

During some visits, conversations led away from fall prevention. Giving tenants an opportunity to speak to a member of staff about issues they face was beneficial for both the tenant and Trent & Dove. It provided an opportunity to address problems before they became more serious, and to intervene on issues that the tenants may not have reported due to sensory or cognitive impairment. Early intervention on property disrepair is more cost effective for Trent & Dove.

Some tenants were suffering social isolation and loneliness which was apparent when they were visited. Being able to offer a referral to Trent & Dove's Befriending service where they could be matched with a volunteer and have regular social contact helped provide hope. Tenants are sometimes unaware of these types of support due to either digital exclusion, lack of advertising, or low motivation or self-worth.

5.8 Limitations of the Project Design

Exercise advisories included daily activity for maintenance of core and leg muscles, using seated exercise, walking or strength and balance exercises. The dominance of this category is likely linked to the nature of the risk control. Where other factors had binary responses, they either were or were not already controlled, exercise could almost always be better controlled by increasing activity from an appropriate starting point. Accordingly, most tenants were given an exercise advisory inflating the number of individual advisories but is unlikely to have affected conclusions drawn from the data because all tenants were affected equally.

Advisories were based on information shared by the tenant and ambient conditions in the property during the visit. Wet weather highlighted any leaks and the need for better management of wet floors during some visits. These failures would have been missed if visits had taken place during dry weather. Some tenants reported tidying their property before the visit, removing the triggers for advisories based on clutter.

Due to data capture design a negative falls trend could not be measured for non-fallers. Neutral or positive falls trends suggest negligible benefit of the visits despite positive qualitative feedback from non-fallers. Further feedback at 12 months post-visit would allow comparison to national statistics and reveal whether the fall prevention benefits of visits had been as marked for the non-fallers as for fallers.

6. Recommendations

6.1 General Recommendations

The project benefited from tenants sharing their experience of home visits with friends and neighbours. Positive reviews increased project reach to the target demographic and prompted some tenants to book a visit.

Spreading awareness and sharing knowledge of preventative measures, as well as tackling the stigma around falls, can snowball and positively influence entire communities. Seeing their neighbours experience a reduction in falls after a change to their lifestyle or home environment is likely to influence others to want to do the same. Equally, negativity toward risk control measures, an acceptance of uncontrolled risk, or a resignation to the inevitability of falls may perpetuate through communities and deter people from talking about falls and taking action.

Social housing providers could harness this snowball effect in the design of support systems for their tenants. Community networks and neighbourhoods to spread awareness of the support available and focussing direct communications on those vulnerable tenants who may be isolated, even from their neighbours. This approach requires a framework of consistent support triggered via logical, transparent criteria. Poor consistency could be viewed as favouritism, sliding the scale in the wrong direction and stopping tenants from revealing any support received to their neighbours.

6.2 Recommendations for Trent & Dove

Clear recommendations for Trent & Dove based on the findings of this project are:

- Regardless of fall history, all tenants should be encouraged to address fall risk. Social housing providers should offer (or signpost) intervention at the point of need.
- Providing home visits for elderly and vulnerable tenants and offering bespoke support in-person with an appreciation of individual circumstances leads to high tenant satisfaction.
- Social housing providers should take a proactive role in monitoring the condition of property occupied by elderly or vulnerable tenants. Cognitive or sensory impairment reduces the capacity of some tenants to report problems and manage risk.
- Sharing up-to-date information about local support pathways available is the best way to empower tenants to make timely, well-informed decisions and minimise uncontrolled risks.

- Review adaptation policy to ensure the level of accessibility is consistent throughout each property. Challenge property developers to consider long-term needs of occupiers during property design, particularly for level-access properties.
- Review investment policy to ensure the facilities meet the needs of the current tenant(s) and consider replacing baths with level-access washing facilities in bungalows to reduce long-term adaptation costs.
- Process modernisation has resulted in some of the most vulnerable tenants left behind. Offer assistance to offline tenants for online-only services (e.g. downsizing), or offer an offline pathway.
- Tenants are discouraged or unable to get help with small problems before they escalate. Facilitating early intervention for physical and psychological issues would prevent unnecessary suffering and likely provide cost savings.

Appendices

Appendix A – Promotional flyer

Falls don't have to happen



FREE home visit and fall prevention advice for Trent & Dove Housing customers aged over-60

Contact Jules for more information
julia.robinson@trentanddove.org
or call 07850 955408

Transforming Homes,
Lives & Communities

accidents don't have to happen

FALL FIGHTER



Dear Customer,

Information about our Falls Prevention Project

We are delighted to announce that Trent & Dove Housing have launched a new falls prevention home visit service.

Falls are the single biggest cause of accidental injuries in the home and can have devastating impacts on people, families and communities. As we age, we become more likely to have a fall and for it to cause serious injury:

- 1 in 3 over-65s and half of those over 80 will experience a fall this year – that's enough people to fill Wembley Stadium 4 times
- 80% of accident-related hospital admissions in over-65s relate to a fall

The good news is that we can do something about it!

You're invited

We are offering free fall prevention home checks to all customers that are over-60. The visit will be carried out by our Customer Health & Safety Advisor and take around 30 minutes. It will involve a room by room check for fall hazards and a discussion about the simple adjustments that can be made to make falls less likely and help you stay alert, active and independent for longer.

If you would like to take advantage of the free home check or want more information, please contact Jules by email at julia.robinson@trentanddove.org or call 07850 955408

Yours Sincerely


Jules Robinson
Customer Health & Safety Advisor

Trent & Dove Housing | Trinity Square | Hominglow Street | Burton on Trent | Staffordshire | DE14 1BL

Appendix C – Fall prevention webpage

Fall Prevention

Trent & Dove > Customer Information > Safety at home > Fall Prevention



Falls can affect people of any age, but as we grow older, we are more likely to fall and suffer serious injury as a result.

Individual factors such as muscle weakness, deterioration of eyesight, poor balance, and taking multiple medications, combined with environmental hazards such as slippery or uneven floors, trip hazards, and poor footwear can all increase the likelihood of a fall.


On average, **people aged 65 have a one in three chance of having a fall** every year. The likelihood rises with age and by **the time people reach 80 the probability is 50% annually**.

People who experience a fall may be affected in a variety of ways. Falls can cause physical injuries ranging from minor scrapes and bruising to more severe injuries needing hospital treatment. It's not always the injuries that are the most disabling, the loss of confidence after a fall may be just as damaging. Many people who have fallen experience a fear of subsequent falls deterring them from going out or taking part in regular activities.

Tackling Falls


Trent & Dove has launched a fall prevention project aiming to help people recognise and address fall risks. We are offering Fall Fighter training sessions to our colleagues and customers and **free fall prevention home visits** to all over-60s living in Trent & Dove properties. Both are designed to introduce simple, effective, and low-cost control measures that can reduce the chance of a fall and help our customers feel safer in their homes.

October '22 - March '23...




113

customers have benefitted from a fall prevention home check




October '22 - March '23...



164

customers have benefitted from in-person Fall Fighter sessions



For more information or to book a **free** fall prevention home visit please complete the form below:

Please tell us your name *

Please tell us your address (including postcode) *

Phone number *

This will allow us to call and arrange an appointment with you.

If you would like to take [Fall Fighter training online](#) please [click here](#).

**Preventing falls at home:
Room by room checklist**



At the front and back door

- Paths, steps and patios are even and well maintained
- Handrail is in place next to steps
- Walking route is well drained and free of pots, fallen leaves etc.
- Door mat is secure and won't slip

On the stairs and landing

- Carpet in good condition and is not heavily patterned
- Free of clutter like shoes or papers
- Handrails on both sides of the stairs
- Handrails fitted securely along the full length of the stairs
- No loose, broken or wobbly steps
- Good lighting can be switched on from top or bottom of the stairs

In the bathroom

- Non-slip mats are in place for the bath or shower
- Grab rails are securely fitted beside the bath, toilet and shower
- A bathmat is used to minimise wet floors after a bath or shower

Comments:

DATE: NAME: ADDRESS:

In the kitchen

- Flooring is slip-resistant and in good condition
- Everyday use items are stored within easy reach around waist height
- A sturdy step stool with a handle is available for reaching higher items
- Wet patches are cleared up and investigated to fix the cause of leaks

In the hallway and lounge

- Carpets are in good condition
- Rugs are secured and won't slip
- Walking routes are clear and free from furniture or other obstacles
- Cables and wires are kept tidy at the edge of rooms
- Floor is free of clutter such as magazines, shoes and bags

In the bedroom

- Floor is kept free of clutter, particularly around the bed
- A light is available within easy reach from the bed
- A nightlight is installed to light the path to the bathroom
- Slippers fit well and are in good condition

Bungalow / Flat / House
Level access / steps
Number of bedrooms:

**Preventing falls at home:
Health checklist**



Sit less, move more

Exercise is great for our physical and mental health! Practising regular leg strength and balance exercises can help you stay independent for longer

- I'm exercising on a daily basis
- I have found out about exercises that help prevent falls

Healthy eating

Including fruit, vegetables and protein in your meals will keep you healthy. High calcium foods and vitamin D can help to keep bones strong

Eyesight

Being able to see clearly can reduce the chance of falling. Take care if wearing varifocal glasses on the stairs

- I've had an eye test in the last 12 months and my glasses updated

Footwear

Wearing ill-fitting or worn-out slippers could cause you to trip and fall. Swap slippers for shoes for added support

Comments:

DATE: NAME: ADDRESS:

Think medicine

Taking 4 or more medications increases the risk of falls so have your medication reviewed regularly. Some medicines can make you feel dizzy or sleepy

Never stop taking medications without first checking with your doctor

Date of my last medication review

Hearing

Having your hearing checked can help you keep your balance

Date of my last hearing check

Plan to get up!

If uninjured move on hands and knees use a solid support to get to your feet. Keeping a phone close to floor level or wearing a call device will help if you can't get up



- I have a way to call for help

Current age:
How many falls have you had in the last 12 months?
Do you use a mobility aid?

Preventing falls at home: Recommendations, advice and signposting



You may want to consider the following to help prevent future falls:

- Please note:**
- The information contained within these checklists is for general information only and must not be treated as a substitute for the medical advice of your own GP or any other health care professional.
 - Trent & Dove is not responsible or liable for any fall, injury or harm you may sustain after the visit has taken place.
 - These recommendations are made to you based solely on information disclosed during your visit.

DATE:

NAME:

ADDRESS:

Thank you for taking part in our fall prevention project!

This is an exciting health & safety initiative aiming to help people recognise and address fall risks. We also have a dedicated Safety at Home page on our website about fall prevention.

Here is a link to the video which we created in support of our project:
<https://www.trentanddove.org/residents/safety-at-home/fall-prevention/>

Further Contact

We will be contacting you again as part of this project 3 months after your home visit to understand the impact the visit has had. This follow up call will be conducted over the phone in majority of cases however if there are communication difficulties we may be in touch via post or email. If you would prefer that we didn't contact you again please call Trent & Dove Customer Services on 01283 528528 or email julia.robinson@trentanddove.org

Your Personal Details

We have collected information from you directly and only because you have agreed for us to do so as part of this project, which is to help customers to recognise and address fall risks.

- We will keep your information secure and confidential.
- We will not be using the information for any other reason.
- We will not share any of the information with anyone else. The information will be held by the Health and Safety Team and only as part of this project.
- The information contained within the checklist will be stored by us for 36 months after the date of your visit.
- Any reports which we produce as a result of the project will be completely anonymous and will not identify you as an individual or where you live. The overall anonymous data will help us to identify areas where additional support may be required more broadly for our customers.

If you do not want us to keep a copy of your form or if you change your mind at a later date and would like us to delete our copy of the form/information collected for this project, please let us know by calling Trent & Dove Customer Services on 01283 528528 or email julia.robinson@trentanddove.org or write to us at Trent & Dove Housing Ltd, Trinity Square, Horninglow Street, Burton on Trent, DE14 1BL. We will ensure that we delete the information immediately.

Appendix E – Control measure framework

Prompt	Response	Control measure
Walks or exercises daily	Yes/No	If no, tenant to try daily walking, increasing number of steps taken daily, or local/online seated exercise class
Familiar with balance exercise for core and leg strength	Yes/No	If no, CHSA demonstrates a supported balance exercise and refers the tenant to NHS website for more exercises
Diet contains sufficient calcium and vitamin D	Yes/No	If no, tenant to contact GP to check vitamin and mineral levels, consider a multivitamin or supplement
Drinks sufficient fluids to avoid dehydration	Yes/No	If no, tenant to gradually increase water intake
Eyesight has been tested in last 12 months	Yes/No/Not needed	If no, tenant to contact optician to arrange eyesight test
Slippers fit well and have a heel cup	Yes/No	If no, tenant to replace slippers with heel cup design
Shoes fit well and provides good support and grip	Yes/No	If no, tenant to replace footwear with sufficient support and grip
Medication has been reviewed in last 12 months	Yes/No/Not needed	If no, tenant to contact GP or pharmacist to arrange medication review
Hearing has been tested if required	Yes/No/Not needed	If no, tenant to contact audiologist to arrange hearing test
Has a call device for summoning help	Yes/No	If no, tenant to consider a pendant or mobile phone that can be carried on person
Grabrails are secure and well positioned	Yes/No/Not applicable	If no, CHSA to arrange installation of grabrails in positions needed by Trent & Dove
Handrails are secure along both sides of staircases	Yes/No/Not applicable	If no, CHSA to arrange installation of handrails if possible
Walkways are wide enough to pass through without changing gait	Yes/No	If no, tenant to arrange furniture layout to allow normal walking and avoid the need to turn sideways or shuffle past furniture
Walkways are clear of clutter and wires	Yes/No	If no, tenant to clear the walkway of clutter and wires
Floors are in good condition, even and free of raised edges	Yes/No	If no, depending on contractual responsibility, either the CHSA arranges survey of flooring that is Trent & Dove responsibility, or tenant arranges repair if it is tenant responsibility

Carpets are in good condition and not heavily patterned	Yes/No	If no, tenant to replace carpet with plain or simple patterned design
Threshold strips bind floor covering in place and pose minimal trip hazard	Yes/No	If no, depending on contractual responsibility, either the CHSA arranges threshold height to be reduced, or tenant arrange flooring fitter to refit/replace threshold strips
Steps/stairs are in good condition	Yes/No/Not applicable	If no, the CHSA arranges survey of the steps or staircases by Trent & Dove
Wet floors and spills are cleared and addressed at their source	Yes/No	If no, tenant to seek method of containing and clearing up spills and contact repair service if appropriate: Trent & Dove for pipework and drainage leaks, private service for household appliance leaks
Rugs and mats lie flat and have non-slip backing	Yes/No/Not applicable	If no, rugs and mats are replaced and non-slip backing is applied if not already in place
Good lighting is available with switches that are well positioned	Yes/No	If no, depending on contractual responsibility, either the CHSA arranges for light fittings to be repaired and switches to be added or moved by Trent & Dove, or the tenant positions lamps and replaces light bulbs
A sturdy stool with handle is used	Yes/No/Not needed	If no, tenant to find a sturdy stool with handle or small set of steps with handle

Preventing falls at home: Follow-up questionnaire



Yes No Unsure

1. Do you know more about fall prevention after the home visit? Yes No Unsure

Comments: _____

2. Do you feel less likely to have a fall at home because of the visit? Yes No Unsure

Comments: _____

3. Since the visit have you taken action to reduce your risk of falling? Yes No Unsure

Action taken: _____

4. Have you had a property adaptation or repair to reduce your risk of falling?

Adaptation/repair: _____ Yes No Unsure

5. As a result of the home visit, do you feel safer at home? Yes No Unsure

6. Number of falls since the home visit: _____

7. Any other feedback or comments about your visit:

Customer name: _____

Date: _____

Answered (circle):

Via relative or friend

Over the phone

In person

Via email

Appendix G – Quantitative data

Chart 1 - Total number of letters distributed (primary axis - columns) and proportion resulting in a home visit as a percentage (secondary axis - line) by age

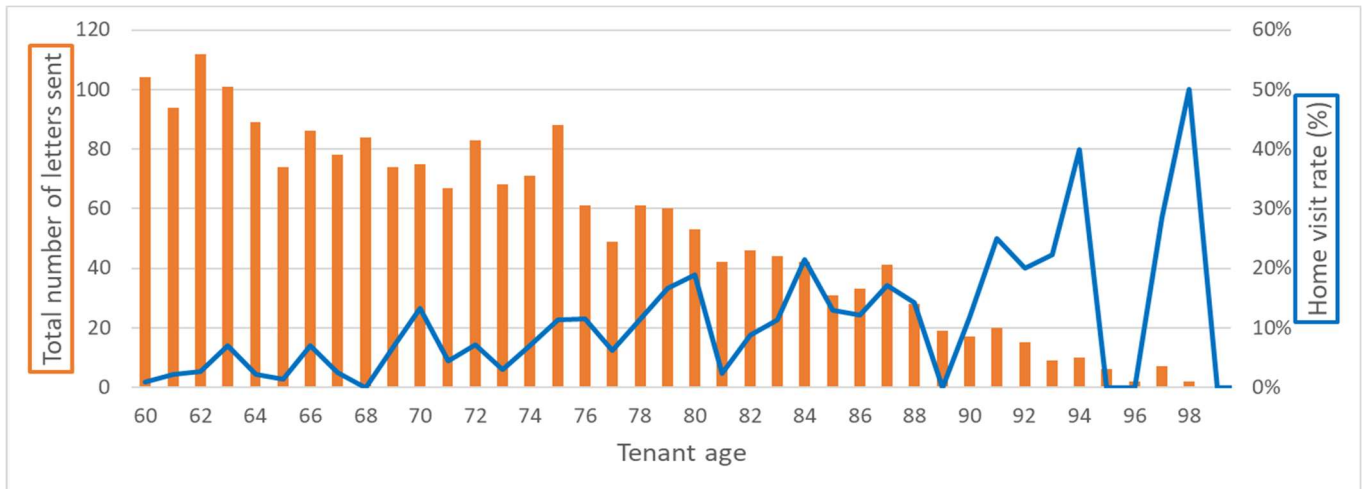


Chart 2 - Distribution of age of tenants who received a home visit

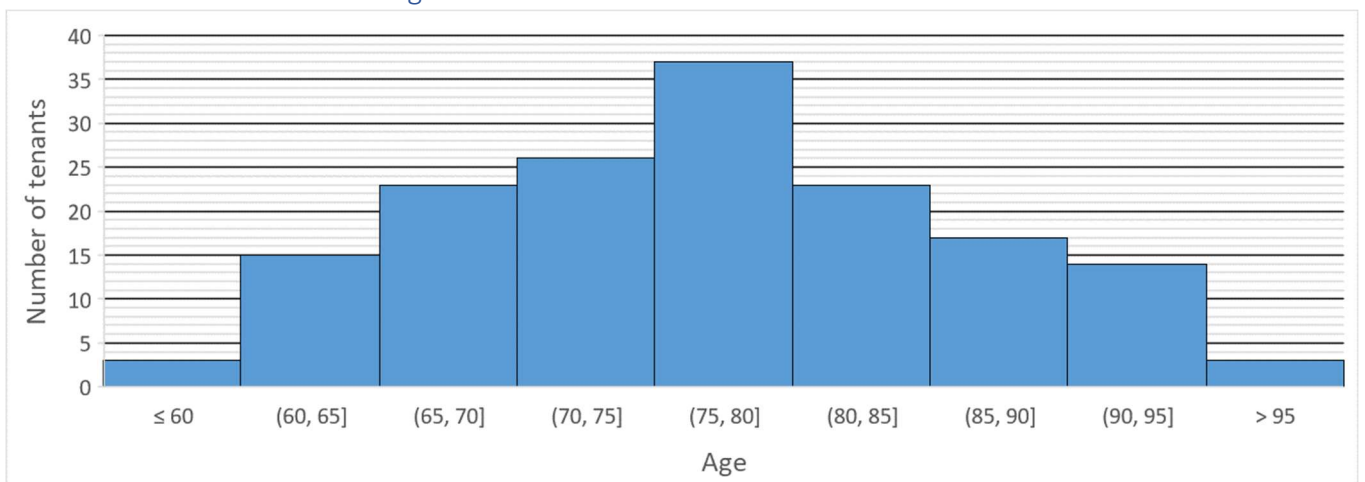


Chart 3 - The average number of falls experienced in the 12 months before a home visit by age, linear trendline showing slight increase in average falls experienced with increasing age

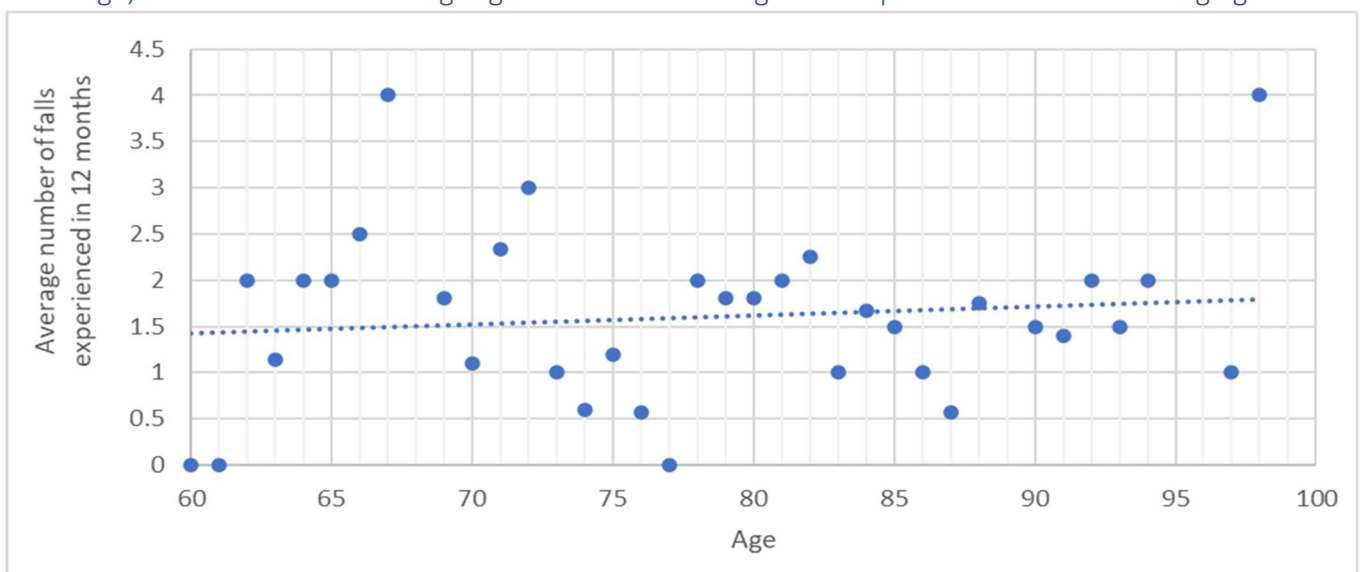


Table 1 - The total number of falls experienced in 60-64, 65-79 and over-80 age groups in the 12 months before their home visits, the number who had experienced at least one fall, and the average rate of falls per faller

	Total falls experienced	Number of fallers	% age group who had at least one fall	Falls per faller
Age 60-64	18	7	46.7%	2.6
Age 65-79	123	39	50.6%	3.2
Age 80+	102	42	62.7%	2.4
Sum total	243	88	55.3%	2.8

Notes on the interpretation of box and whisker charts:

The bottom and top of the box indicate the spread of data falling between 25% and 75% respectively when the data points are sorted into numerical order. The height of the box is the interquartile range (IQR), the larger this value is, the greater the spread of data (variance). The line across the box indicates the median. When the number of data points is odd the median is included in the calculation. The mean is marked with an X on non-continuous data or shown as a mean line on continuous data sets. Whiskers must end on a data point and may be up to 1.5x IQR in length drawn from either end of the box. Data points outside whiskers are deemed outliers and displayed as points.

Chart 4 - The variance in number of falls experienced in the 12 months before the home visit by the type of mobility aid used. All types of mobility aids relied on only when outdoors have been grouped

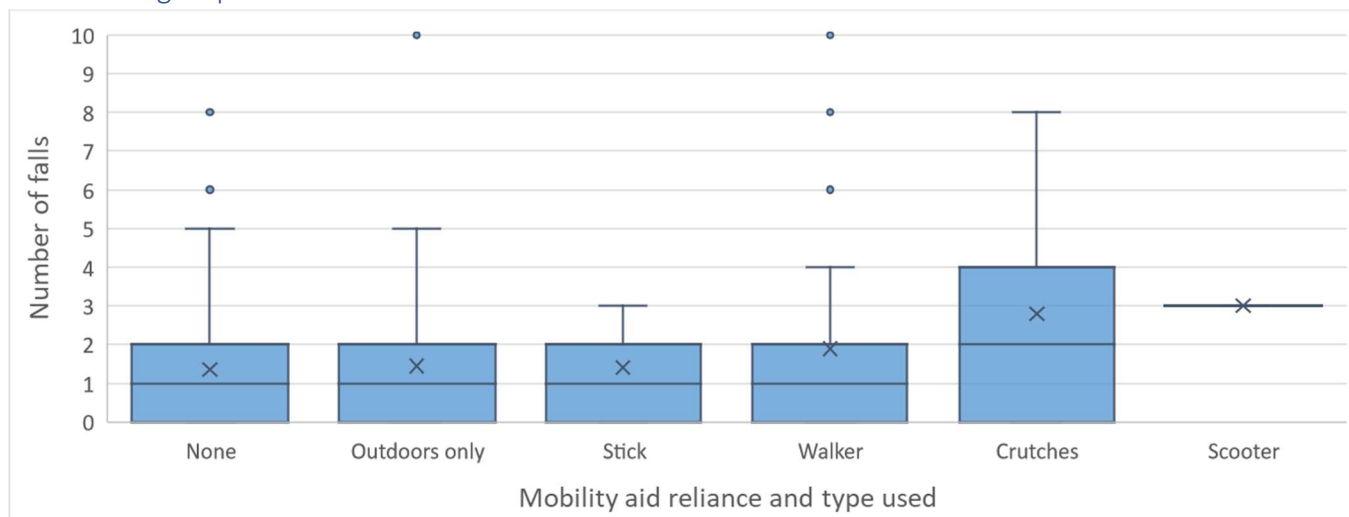


Chart 5 - Types of mobility aid used by tenants visited shown as proportion of total

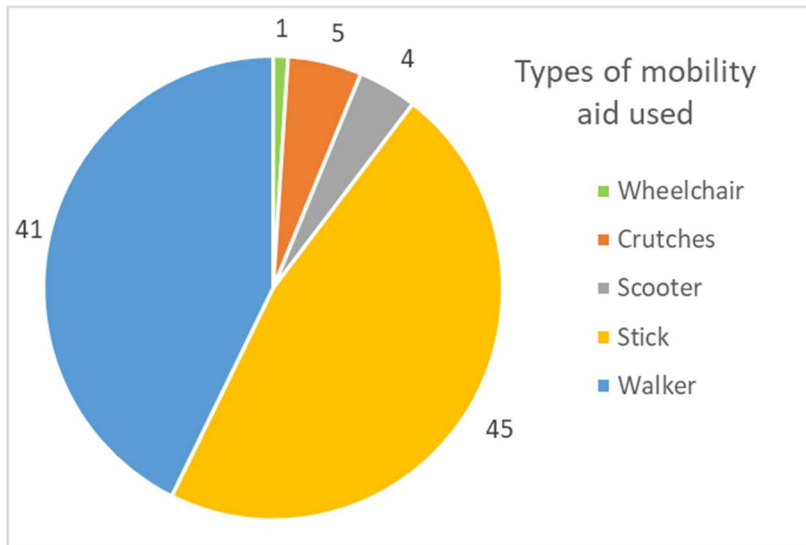


Chart 6 - Type of property visited shown as a proportion of the total 161 visits completed

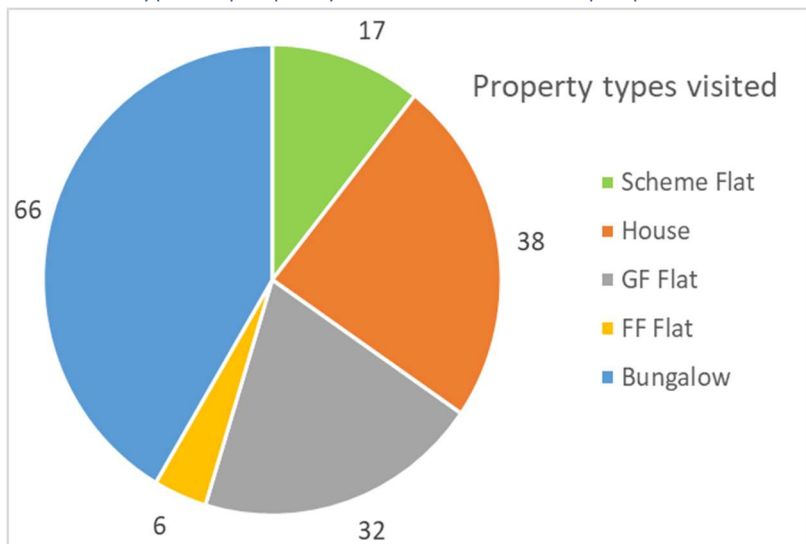


Chart 7 - Variance in tenant age by property type

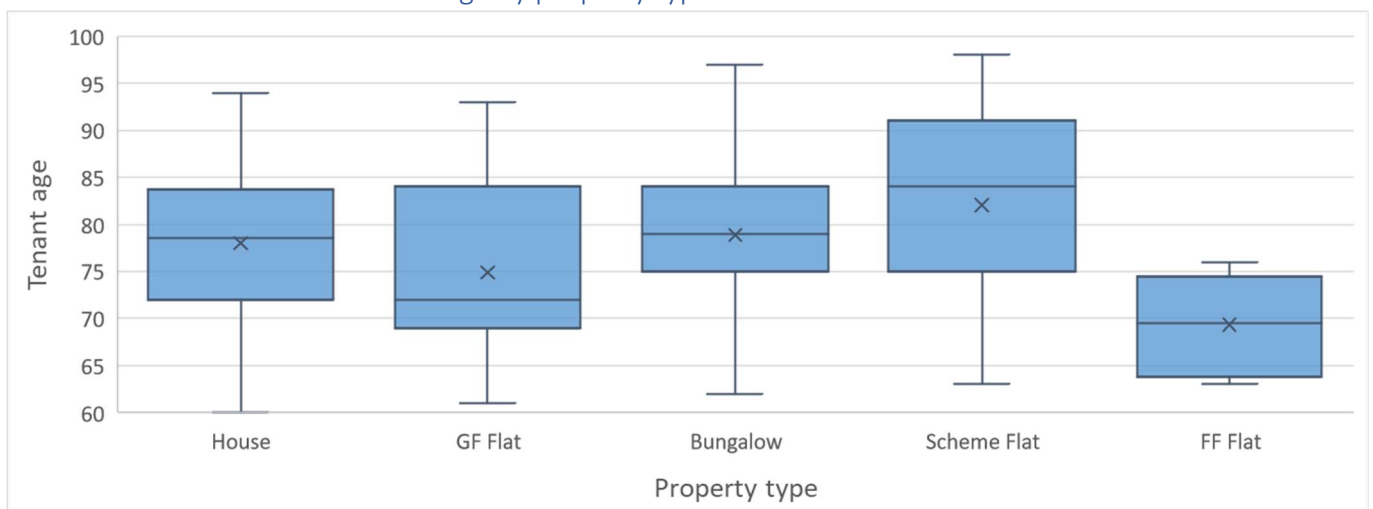


Chart 8 - Variance in the number of environmental and individual advisories given during a visit by age group

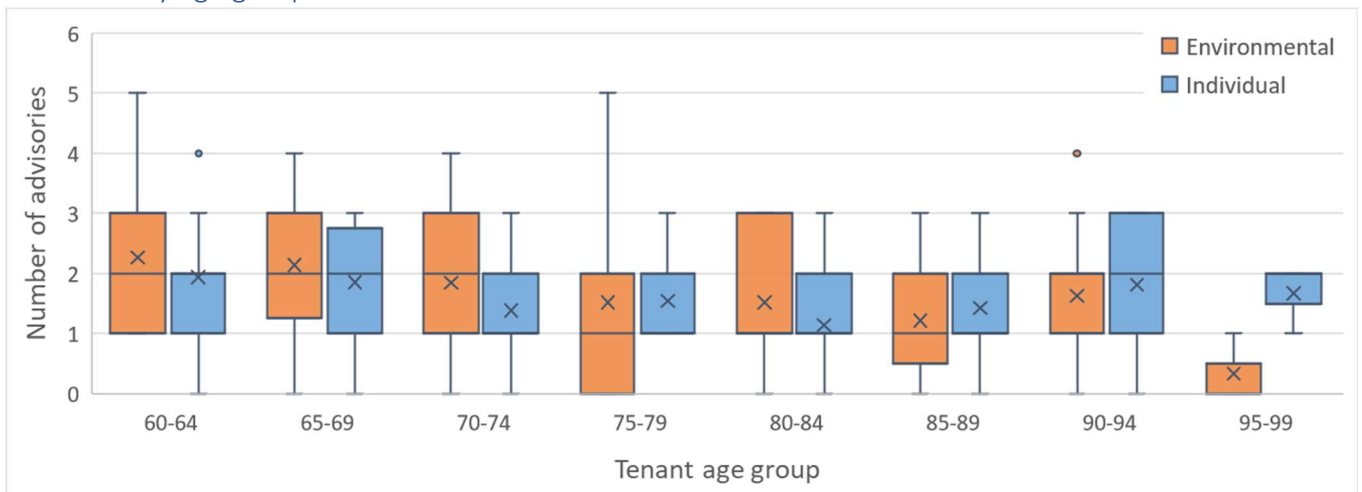


Chart 9 - Variance in the number of advisories given during visits to fallers vs non-fallers

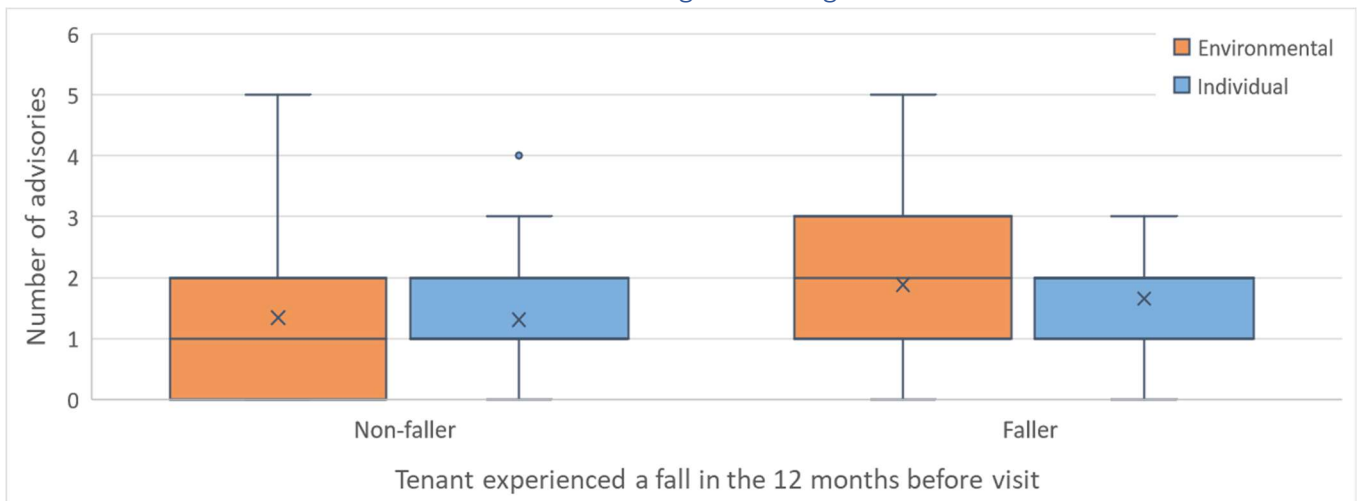


Chart 10 - Variance in number of environmental and individual advisories given during visits in different property types

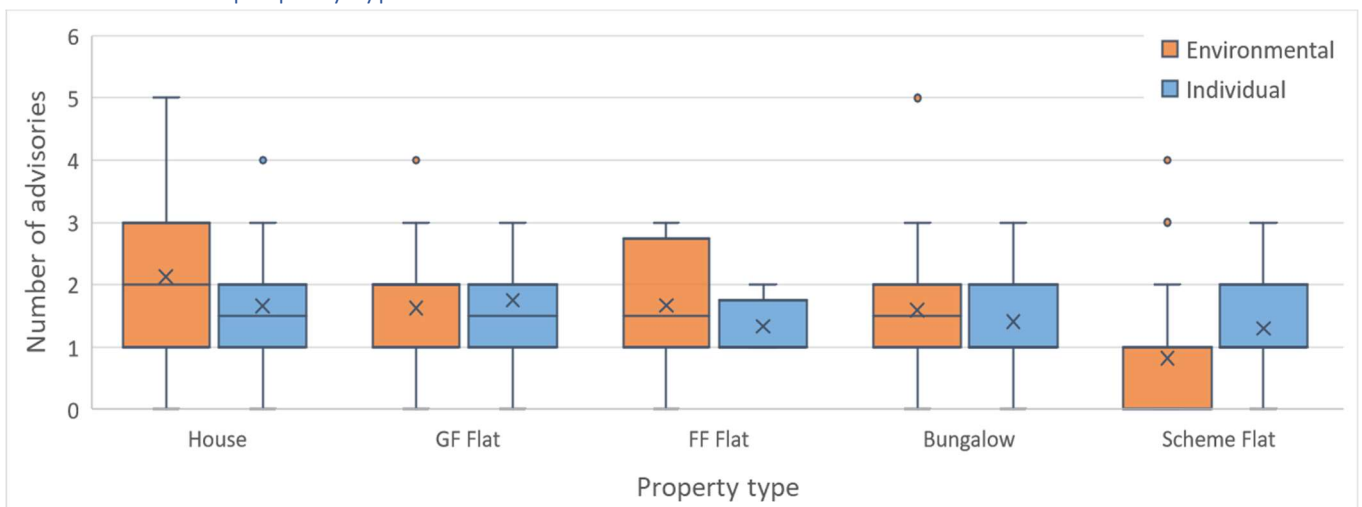


Chart 11 - The trend in falls against the experience of falls in the 12 months before the visit

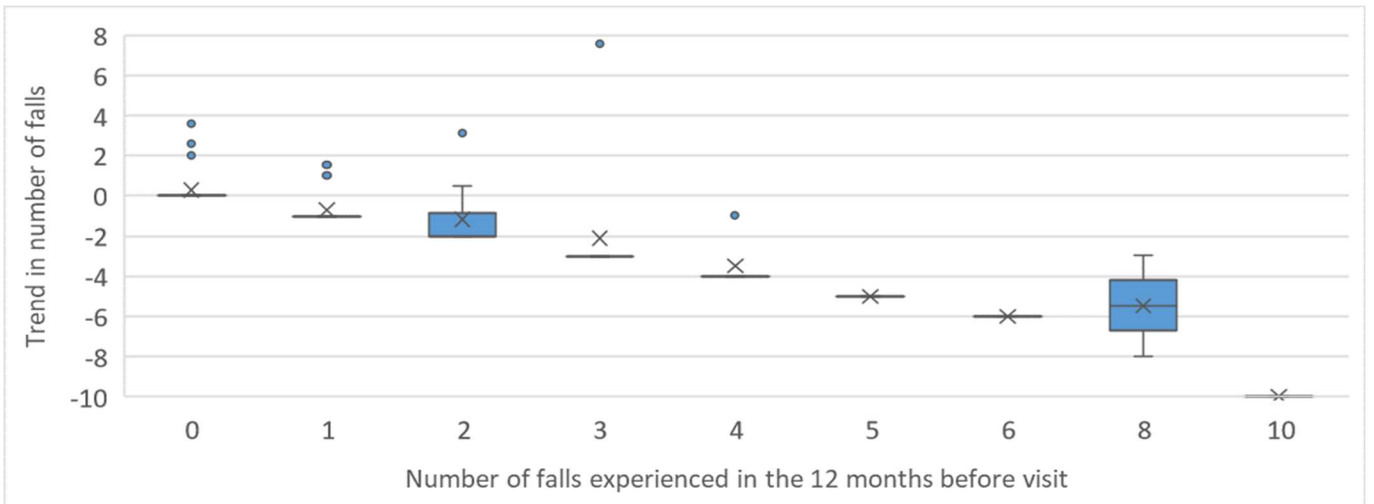


Chart 12 - The trend in falls against the number of days between the visit and survey dates, with linear trendline showing a more negative falls trend with increasing days between visit and survey

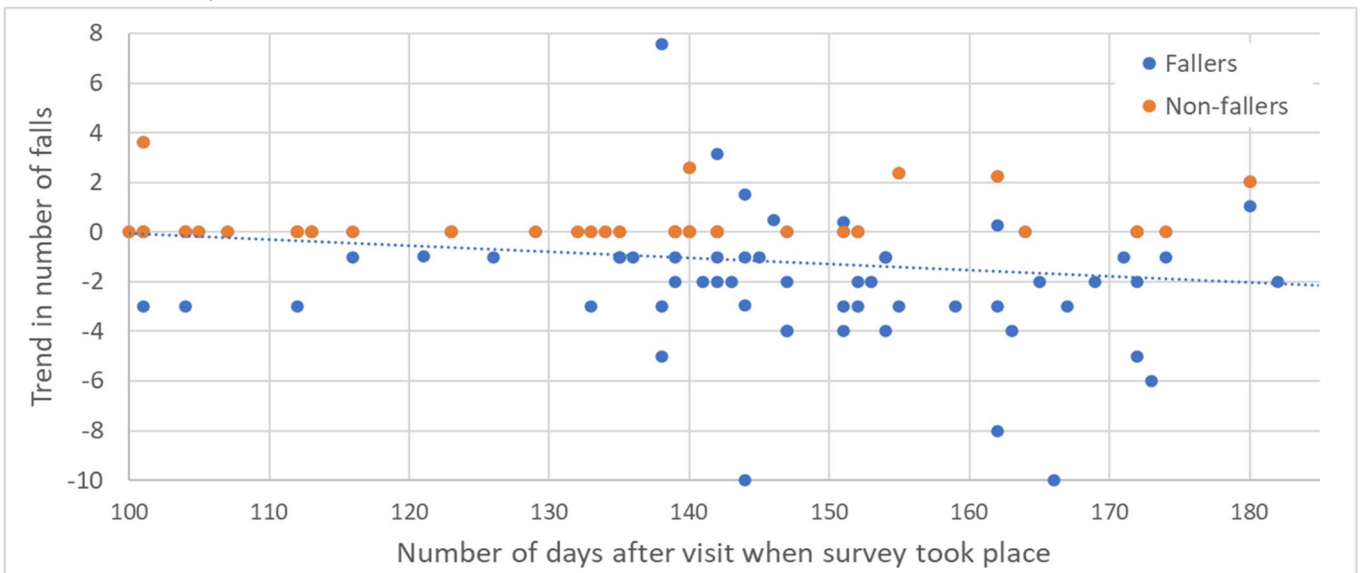


Chart 13 - The trend in falls against the total number of advisories given during the home visit

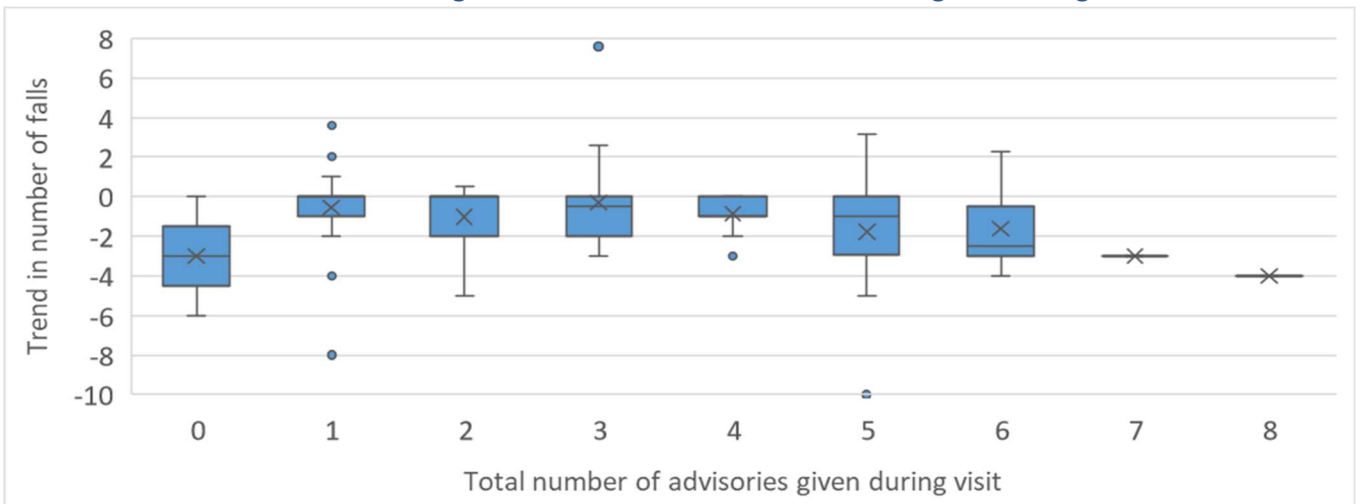
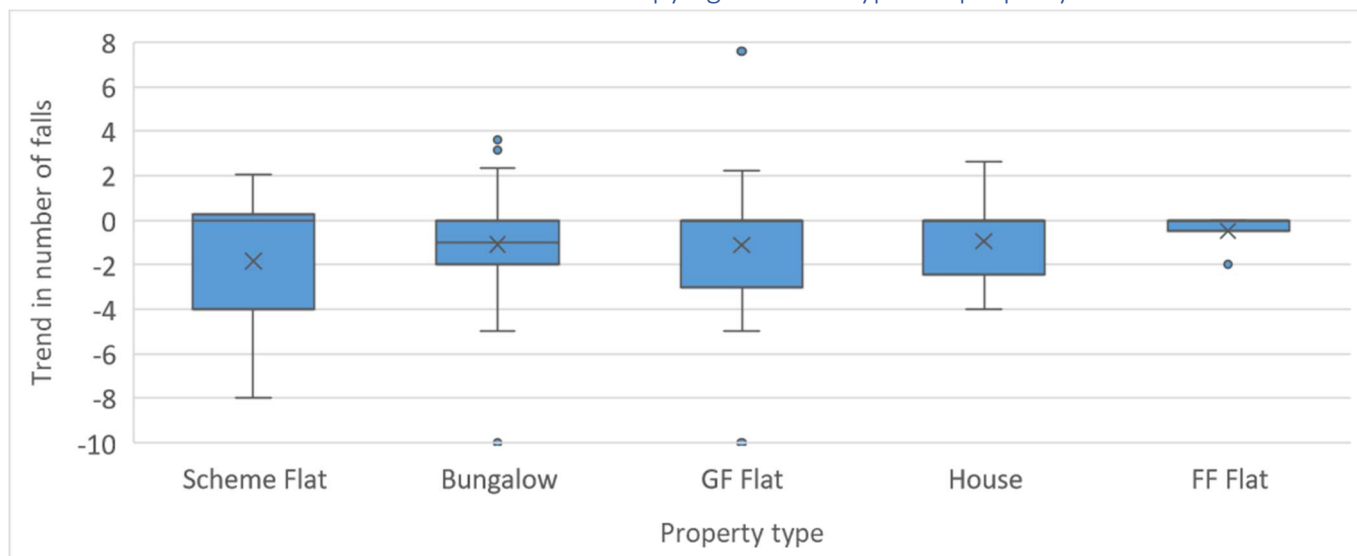


Chart 14 - The trend in falls for tenants occupying different types of property



Appendix H – Qualitative data

Additional Survey Comments Verbatim
Both really appreciated the visit and thought
Could do with some prompts due to poor memory and remembering all advice
Due to chest infection and water infection - fell and pulled cord
Fall outside at the dustbin
Feel better knowing the risks to look out for
Feels a lot better now and is more careful. Sits straight down if she gets wobbly
Feels a lot safer with the handles and chair to do the dishes etc.
Feels better knowing that Fall Prevention Officer has looked all around the any hazards she may have not noticed
Has had one fall off the scooter in the supermarket and broke her leg
Has seen doctor and now has iron tablets
Help with drives outside would help.
I am very grateful to Jules for getting the work on my front step done.
I have had a few falls in the past but I am fairly careful now, it was well worth the visit.
I thought Jules was very professional.
I'm getting on alright thank you
It is common sense
It puts my mind at rest having had a visit
Jules has opened my mind to the possibilities of what can happen and I feel safe and secure in the house
Jules was absolutely brilliant.
Jules was great and very pleasant
Jules was helpful
Jules was such a lovely person, very informative.
Jules was very good and informative, feels a lot safer a home
Jules was very helpful - would like ramps installed inside and outside door.

Jules was very, very helpful, it was lovely to speak to her
Julia was such a nice person was very diligent in taking photos and getting additional rails fitted. Just an issue with the stairwell.
Lady was so nice and put them at ease
Lady was very nice and not pushy and nice to chat.
Lovely lady and enjoyed the visit - easy to speak to
Lovely lady came to visit and really put us at ease. Nice to have someone to check on us.
Nice to see were checking on tenants, Jules was very helpful and friendly
Please keep doing what you are doing, we need more people like you.
Really beneficial and pleased to have been given the support
Satisfied with the visit
Thank you for actually caring about your older tenants
Thank you for spending some time to try and sort out issues she's having
Thank you for thinking about us, it makes us feel better in our homes.
Thank you for your help
Thank you for your visit
The lady and visit was very good. Just waiting to have a surveyor visit to look at the risks mentioned.
Thought it was really thoughtful to do this for people
Trips a lot over the wood
Useful information
Very encouraging, needed it. She was amazing, recommend to anyone.
Very good idea, more aware. Very worthwhile
Very good, and the workmen
Very interesting and really enjoyed doing face to face. Hopes the visits will continue as us oldies don't ask for help
Very much appreciated
Very nice lady who knew what she was talking about.
Very useful - 10 out of 10. Great communication with Mary who has Alzheimer's.
Very wobbly now.
Visit was very helpful, concerns on the size of room, and in need of a 2-bed bungalow
Very good and pleasant person
Wants to say how grateful him and his wife are for Trent & Dove, everything that they do is wonderful

References

Andersen DA, Roos BA, Stanziano DC, Gonzalez NM, Signorile JF. Walker use, but not falls, is associated with lower physical functioning and health of residents in an assisted-living environment. *Clinical Interventions in Aging*, 2 (2007), pp. 123-137

Asai T, Oshima K, Fukumoto Y, Yonezawa Y, Matsuo A, Misu S. The association between fear of falling and occurrence of falls: a one-year cohort study. *BMC Geriatric*. (2022) May 5; 22(1):393.

Bateni H, Maki BE. Assistive devices for balance and mobility: benefits, demands, and adverse consequences. *Archives of Physical Medicine and Rehabilitation* (2005) 86 (1), pp. 134-145

Bergen G, Stevens MR, Burns ER. Falls and Fall Injuries Among Adults Aged ≥65 Years — United States. *Morbidity and Mortality Weekly Report* (2014) 65 pp. 993–998.

Chartered Institute of Physiotherapy website. Available www.csp.org.uk/public-patient/keeping-active-and-healthy/staying-healthy-you-age/staying-strong-you-age/strength

Drew L, Lee-Mills J, Smith-Gamble E, Bird C, Ekpenyoung G, Coane J. Moving On- could later living be the answer to the housing crisis? Shakespeare Martineau, 2023

Housing Health and Safety Rating System (2006). Available: <https://www.gov.uk/government/publications/housing-health-and-safety-rating-system-guidance-for-landlords-and-property-related-professionals>

Jefferis BJ, Iliffe S, Kendrick D, Kerse N, Trost S, Lennon LT, Ash S, Sartini C, Morris RW, Wannamethee SG, Whincup PH. How are falls and fear of falling associated with objectively measured physical activity in a cohort of community-dwelling older men? *BMC Geriatric*. (2014) Oct 27; 14:114.

Khan KS, Christensen DH, Nicolaisen SK, Gylfadottir SS, Jensen TS, Nielsen JS, Thomsen RW, Andersen H. Diabetics have more falls. Falls and fractures associated with type 2 diabetic polyneuropathy: A cross-sectional nationwide questionnaire study. *Journal of Diabetes Investigation* (2021) Oct 12(10) pp. 1827-1834.

NICE. Falls – Assessment and prevention of falls in older people. London: 2013. Available: <https://www.nice.org.uk/guidance/cg161/evidence>

UK Health Security Agency website. Available: <https://www.gov.uk/government/publications/falls-applying-all-our-health/falls-applying-all-our-health>

Stevens JA, Thomas K, The L, Greenspan AI. Unintentional fall injuries associated with walkers and canes in older adults treated in U.S. emergency departments. *Journal of the American Geriatrics Society*, 57 (2009), pp. 1464-1469

Tian Y TJ, Buck D, Sonola L. Exploring the system-wide costs of falls in older people in Torbay. London UK: 2013. Available: <https://www.kingsfund.org.uk/publications/exploring-system-wide-costs-falls-older-people-torbay>

Treml J, Husk J, Lowe D, Vasilakis N. Falling standards, broken promises: Report of the national audit of falls and bone health in older people 2010. London UK: 2011

Wheatley M. Are housing associations ready for an ageing population. London, England: The Smith Institute, 2015

Winchester N. Social housing and digital exclusion. London, England: National Housing Federation, 2009. Available: <http://oro.open.ac.uk/27223/1/DigitalExclusion2009.pdf>.