



**REPORT TO: PERFORMANCE & AUDIT COMMITTEE – 29 MAY 2018**  
**REPORT ON: FALLS PERFORMANCE**  
**REPORT BY: CHIEF FINANCE OFFICER**  
**REPORT NO: PAC32-2018**

**1.0 PURPOSE OF REPORT**

The purpose of this report is to provide assurance that an in-depth analysis of falls related hospital admissions in Dundee has been provided to relevant professionals and groups in order to support improvements.

**2.0 RECOMMENDATIONS**

It is recommended that the Performance & Audit Committee (PAC):

- 2.1 Notes the contents of this report and the analysis of falls related hospital admissions (section 5.0 of this report and appendix 1).
- 2.2 Notes the current activity to reduce falls related hospital admissions, prevent incidences of falls and support people who have fallen or who are at risk of a fall (section 6.0 of this report).
- 2.3 Notes the future priority areas (section 8.0 of this report).

**3.0 FINANCIAL IMPLICATIONS**

None.

**4.0 BACKGROUND INFORMATION**

- 4.1 National Health and Wellbeing Indicator 16 is “Falls rate per 1,000 of >65 population”. The focus of this indicator is the number of falls that occur in the population (aged 65 plus). The indicator is measured using data gathered by Information Services Division (ISD).
- 4.2 This indicator is monitored in the Quarterly Performance Report and was included in the Q3 report (Report number PAC15-2017, presented to the PAC meeting on 19 July 2017) and the Annual Performance Report (Report number DIJB29-2017, presented to the IJB Meeting held on 29 August 2017). Both reports highlighted the particularly high rate of hospital admissions within the Dundee population of people aged 65+ as a result of a fall.
- 4.3 In 2016/17 Dundee had a rate of 26.0 hospital admissions as a result of a fall per 1,000 people aged 65+. Benchmarking with other Partnerships shows that Dundee had the 2<sup>nd</sup> highest falls rate in Scotland and was significantly higher than the Scottish rate of 21.7 admissions as a result of a fall per 1,000 people aged 65+. An analysis of falls admissions was presented to the PAC held on 12 September 2017 (PAC26-2017), with the PAC requesting a further detailed analysis of falls in Dundee.
- 4.4 Falls can have a significant impact on an older person's independence and quality of life, impeding a person's mobility and confidence. However, falls are not an inevitable consequence of old age. Well-organised services, delivering recommended and evidence based practices can prevent many falls and fractures in older people in a community setting. Rehabilitation services are key to preventing repeat falls. In addition, the safety of a person's immediate

environment as well as a review of their prescribed medicines are important alongside a multifactorial assessment including; eyesight, footwear, foot condition, bone health, nutrition, continence, daily activities and cognition. For every £1 invested in physiotherapy rehabilitation into falls services, £4 is saved across health and social care services (Chartered Society of Physiotherapy).

- 4.5 A recently published economic evaluation provided an estimate of the cost to health and social care services in Scotland of managing the consequences of falls is in excess of £470 million and without intervention is set to rise over the next decade as our population ages and the proportion with multi-morbidity and polypharmacy (service users in receipt of multiple drugs to treat conditions) grows.

## **5.0 WHAT THE DATA IS TELLING US**

- 5.1 At 2017/18 Q2 Dundee had the 2<sup>nd</sup> highest fall admission rate compared to the other 32 partnerships in Scotland.
- 5.2 As at 2017/18 Q3, the West End had the highest fall admission rate with 38 admissions per 1,000 population aged 65+. The Ferry had the lowest fall admission rate with 22 admissions per 1,000 population aged 65+. Overall, Dundee has seen an increase in fall admission rate from 24.5 in 2015/16 Q2 to 28.3 in 2017/18 Q3.
- 5.3 As at 2017/18 Q3, the East End and the West End had the highest fall admission rates where the fall occurred in the home with 22 admissions per 1,000 population aged 65+. The Ferry had the lowest fall admission rate with 12 admissions per 1,000 population aged 65+.
- 5.4 As at 2017/18 Q3, the West End had the highest fall admission rate where the fall occurred outside the home with 16 admissions per 1,000 population aged 65+. Strathmartine had the lowest fall admission rate with 9 admissions per 1,000 population aged 65+.
- 5.5 The number of monthly fall admissions in Dundee, where a fall occurred in the home, has not seen any significant changes. The number of monthly fall admissions in Dundee, where a fall occurred outside the home or place of work, saw a significant increase in December 2017 which may be attributable to weather conditions.
- 5.6 The gap between fall admission rates of people who live in the most deprived (quintile 1) and the least deprived (quintile 5) has increased since 2014/15 Q4. In 2014/15 Q4, the fall admission rate for the people who live in the most deprived areas was 25% higher than the least deprived and this increased to 37% in 2017/18 Q3.
- 5.7 The gap between fall admission rates, where a fall occurred in the home, in the most deprived and the least deprived areas has also increased since 2014/15 Q4. In 2014/15 Q4, the admission rate where a fall occurred in the home in the most deprived areas was 25% higher than the admission rate where a fall occurred in the least deprived areas and this increased to 27% in 2017/18 Q3.
- 5.8 The gap between fall admission rates, where a fall occurred outside the home or place of work, in the most deprived and the least deprived areas has seen a sharp increase since 2016/17 Q3. In 2014/15 Q4, the fall admission rate for people who live in the most deprived areas was 24% higher than for people who live in least deprived areas and this increased to 59% in 2017/18 Q3.
- 5.9 The number of people living with a community alarm, as a rate per 1,000 65+ population, decreased in Dundee from 30 in 2015/16 to 26 in 2017/18 (a decrease of 16%). Only Coldside saw an increase in the number of people living with a community alarm from 29 per 1,000 65+ population in 2015/16 to 33 in 2016/17. Strathmartine, the Ferry and the West End had the lowest rates in 2016/17 with between 20 and 22 per 1,000 65+ population.
- 5.10 In 2016/17 there were 330 people who experienced a single fall admission, 45 people who experienced two fall admissions and 17 people who experience three or more falls admissions.

- 5.11 Of the people who experienced three or more fall admissions in 2016/17, nearly half had a home care package. This fell to around 30% for people who had experienced 1 or 2 falls.
- 5.12 Arthritis was the most common long term condition for people who experienced a fall admission in 2016/17. For those who experienced 3+ falls, around half had arthritis. Chronic heart disease and dementia were also prevalent with over a third of people who experienced multiple falls having one of these conditions.
- 5.13 The average cost to the health service of providing treatment to people who had a single fall admission in 2016/17 was £18,000 per person. This increased to £25,000 for people who had 2 fall admissions and £27,000 for those who had three or more fall admissions.
- 5.14 The average number of dispensed prescribed items in 2016/17 was 68 for people who had a single fall admission, 93 for those who had two fall admissions and 100 for those who had three or more fall admissions. This finding has prompted a further analysis to establish if poly-pharmacy is contributing to the risk of falling or if multiple prescribed items and high numbers of falls is simply an indicator of frailty.

## **6.0 CURRENT SERVICE MODEL**

### **6.1 Falls Classes**

There are currently six falls prevention classes held each week in three locations – Mackinnon Centre, Kings Cross Hospital and Royal Victoria Hospital and these classes accept both self, carer and professional referrals. These classes are organised and run by the community rehabilitation and falls team. It is intended that the location of falls classes will be reviewed in line with locality plans and neighbourhood level data about falls. These classes are supported by physiotherapists and support workers and are aimed at people who have fallen or who have a fear of falling. The classes improve strength, balance, confidence and function. Education is also provided to participants on reducing the risk of falls in the future. The evidence base behind providing classes to prevent falling states that balance and strength must be challenged in order for improvements to be seen. For this reason there are three levels which are aimed at different levels of ability and frailty. There is also an Otago based maintenance class within the community, to prevent re-referrals and recurrent falls. The current waiting list is approximately 15 weeks from referral, however following an initial assessment people are offered advice and basic exercises to prevent falls while they await their place at the class.

### **6.2 Education**

Education and falls prevention roadshows are being rolled out to established groups in the community in collaboration with other services within the Dundee Health and Social Care Partnership. In addition to this, training has been provided to physiotherapy community staff, ambulance crews, social care response workers, medical students and care home workers.

### **6.3 Community Equipment Loan Service**

Dundee and Angus Health and Social Care Partnerships launched a new shared community equipment loan service for people with disabilities living in Dundee and Angus. The new venture is based at the Dundee Independent Living and Community Equipment Centre in Dundee and provides, delivers, installs, repairs, maintains and recycles a range of equipment to help people of all ages living in Dundee to live independently. It also provides a technical advice service and carries out risk assessments with medical and care professionals, both in-store and in people's homes.

### **6.4 Referral Pathway Redesign**

GP referrals into medicine for the elderly services are now screened by the falls service instead of by medical teams. Patients are then signposted to the most appropriate clinic (physiotherapy, occupational therapy, nurse) or medical. This has reduced the time patients wait to be seen by the most appropriate person. Previously there was a waiting time of up to 16 weeks to access the medical clinic and then referred to the multidisciplinary team. This has been reduced to 4-6 weeks for the medical clinic and 1-2 weeks for the multidisciplinary team.

### **6.5 Support in Care Homes**

The community rehabilitation team provided support to care home employees, particularly regarding the Otago falls programme. All care homes in Dundee that expressed interest in

receiving support have been provided with training to employees. There was a high uptake in training in the care homes located in Broughty Ferry. The care homes are expected to roll out training and the quality of the approach to prevent falling in care homes is expected to vary. Further work is required to ensure a sustainable model is in place across Dundee care homes.

#### **6.6 In Patients and Out Patients**

On a daily basis (Monday to Friday) physiotherapy services identify from referred patients aged 65+ who have either fallen twice in the last 12 months or who are at risk of a fall. They undertake balance, gait and strength assessments to reduce the risk of future falls. Patients are provided with strength and balance exercises, a falls booklet and referred to either the community rehabilitation team or the falls service.

#### **6.7 Collaborative Working with Scottish Ambulance Service and Other Stakeholders**

Services worked together to develop a pathway for use by the Scottish Ambulance Service and this has recently been implemented to help avoid the conveyance of service users that have fallen, but are uninjured, to hospital. This involves referring directly to the falls service and the first contact, out of hours and social care response teams. Work is currently being undertaken to further develop cross-sector working and promote the importance of all these services, recognising potential falls risk to the service user and referring for assessment as appropriate. An educational falls pack has been developed for service users. The social care response team is assessing IT systems to identify patients who have increased frequency of falling and refer to the falls service. Scottish Ambulance Service, the social care response team and patients can now refer directly to the falls service. This has improved the identification of people at risk of a fall.

#### **6.8 Emergency Department (ED)**

On a daily bases the falls team receives a list of people who attended the ED following a fall. The team contacts each person by telephone and then signposts to information and refers to services which can support underlying issues such as balance, substance misuse, polypharmacy and sensory impairment. The musculoskeletal and community rehabilitation physiotherapy teams provides support to people with dischargeable injuries, such as a shoulder rotator cuff tear, or stable fracture. In addition to a telephone call, people receive a pack in the post which includes a cover letter, falls prevention booklet, self / professional / carer referral form for the falls service and also the exercise classes. The pack also includes information about DIAL – OP service which signposts to all services and classes in Dundee. This includes a range of voluntary sector supports including a morning call service to check a person is safe and well.

### **7.0 THE ENVIRONMENT – STREET LIGHTING**

7.1 The sole function of street lighting is to light the road to ensure Dundee City Council meets their duty of care to road and footpath users. This has a direct link with falls away from the home as adequate street lighting ensures that obstacles, including uneven surfaces are visible during the hours of darkness. Work has commenced on a two year programme of fitting more than 18,000 new white LED lights across Dundee at a cost of £4.8m.

### **8.0 PRIORITY AREAS FOR IMPROVEMENT**

8.1 The Tayside Falls Prevention and Management Framework 2018-2022 has recently been developed and is currently out for consultation. This provides the infrastructure to monitor progress in the community, hospital and care homes towards preventing the incidence of falls and reducing the negative effect of falling on people who fall and their carers. The Framework is organised under four stages:

Stage 1 – Supporting active ageing, health improvement and self management to reduce the risk of falls.

Stage 2 – Identifying individuals at risk of falls and / or fragility fractures.

Stage 3 – Responding to an individual who has just fallen and requires immediate assistance.

Stage 4 – Co-ordinated management including specialist assessments.

This framework will be implemented in Dundee and stage 1 will be prioritised.

8.2 In addition to the Tayside Framework, there is recognition that more still needs to be achieved at a Dundee and locality level and the following actions have been prioritised:

- recognising the need to work more efficiently within existing resources including the strengthening of links with community / voluntary groups and broader stakeholders.
- discussions with Dundee College to start a project where students are trained in Otago and then with support from the community rehabilitation team, are able to implement it within care homes.
- the implementation of a home based Otago project for patients who are unable to attend the class.

## 9.0 AREAS FOR FURTHER ANALYSIS

The Dundee Falls Service will complete an audit of all patients with more than 2 hospital admissions as a result of a fall in order to identify if they were already known to the falls service; had a multifactorial assessment and had received support from the community rehabilitation team.

## 10.0 RISK ASSESSMENT

<b>Risk 1 Description</b>	The risk of not reducing the rate of hospital admissions due to a fall could affect; outcomes for individuals and their carers and spend associated with unscheduled hospital admissions if the Partnership's performance does not improve.
<b>Risk Category</b>	Financial, Governance, Political
<b>Inherent Risk Level</b>	Likelihood 3 x Impact 5 = Risk Scoring 15
<b>Mitigating Actions</b> (including timescales and resources )	<ul style="list-style-type: none"> <li>- The in depth analysis included in this paper and appendix will be used to inform senior managers.</li> <li>- The Tayside Falls Prevention and Management Framework will provide an infrastructure to monitor progress in the community, hospital and care homes towards preventing the incidence of falls and reducing the negative effect of falling on people who fall and their carers.</li> <li>- The priority areas for improvement (section 8.0) have been developed to reduce the rate of hospital admissions as a result of a fall.</li> </ul>
<b>Residual Risk Level</b>	Likelihood 3 x Impact 3 = Risk Scoring 9
<b>Planned Risk Level</b>	Likelihood 2 x Impact 3 = Risk Scoring 6
<b>Approval recommendation</b>	The risk level should be accepted with the expectation that the mitigating actions are taken forward.

## 11.0 POLICY IMPLICATIONS

This report has been screened for any policy implications in respect of Equality Impact Assessment and Risk Management. There are no major issues.

## 12.0 CONSULTATIONS

The Chief Officer, Head of Service - Health and Community Care and the Clerk were consulted in the preparation of this report.

## 13.0 BACKGROUND PAPERS

None.

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DATE: 8 May 2018

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Appendix 1



# Falls Report for Dundee H&SCP

Stephen Halcrow



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## Local Intelligence Support Team (LIST), ISD Scotland

### Introduction

This report has been prepared by the Local Intelligence Support Team (LIST) on behalf of Dundee Health & Social Care Partnership in order to better understand unscheduled care activity.

This report aims to show how Dundee H&SCP compares to Scotland and other partnerships within NHS Tayside for the following measures: emergency admissions, potentially preventable admissions, average length of stay for emergency admissions and emergency occupied bed days. Variances in unscheduled care activity will be illustrated across different age groups and acute specialties that are devolved to the partnerships in NHS Tayside.

### Data Sources

The data used for this report is taken from the SMR01 national dataset and trend data shows annual rolling totals for each financial quarter since 2014/15Q4 (April 14 to March 15) up to 2017/18Q3 (January 17 to December 17). This allows the reader to observe trends in the data and to identify which quarters the data climbs or falls. For national comparisons against all 31 partnerships, the indicators only show financial year 2016/17 as this is the latest period that is published at ISD for unscheduled care activity (2017/18 activity will be published in September 2018).

### Main Points

#### Fall Admissions by Local Community Planning Partnerships (LCPPs)

- As at 2017/18Q3, the West End had the highest fall admission rates with 38 per 1,000 population aged 65+. The Ferry had the lowest fall admission rates with 22 per 1,000 population aged 65+. Overall, Dundee showed an increase in fall admission rates from 24.5 in 2015/16Q2 to 28.3 in 2017/18Q3.
- As at 2017/18Q3, the East End and the West End had the highest fall admission rates that occurred in the home with 22 per 1,000 population aged 65+. The Ferry had the lowest fall admission rates with 12 per 1,000 population aged 65+.
- As at 2017/18Q3, the West End had the highest fall admission rates that occurred outside the home with 16 per 1,000 population aged 65+. Strathmartine had the lowest fall admission rates with 9 per 1,000 population aged 65+.

#### Number of Fall Admissions by Month

- The number of monthly fall admissions in Dundee, where a fall occurred in the home, did not see any significant changes between 2014/15Q4 and 2017/18Q3
- The number of monthly fall admissions in Dundee, where a fall occurred not in the home or place of work, saw a significant increase in December 2017.

### Fall Admissions by Deprivation (H&SCP SIMD Quintiles)

- The gap between all fall admission rates in the most deprived (quintile 1) and the least deprived has increased since 2014/15Q4. In 2014/15Q4, the admission rates for the most deprived was 25% higher than the least deprived and this increased to 37% in 2017/18Q3.
- The gap between fall admission rates, where a fall occurred in the home, in the most deprived and the least deprived has also increased since 2014/15Q4. However, this gap has reduced again since 2016/17Q4. In 2014/15Q4, the admission rates for the most deprived was 25% higher than the least deprived and this increased to 27% in 2017/18Q3.
- The gap between fall admission rates, where a fall occurred not in the home or place of work, in the most deprived and the least deprived has seen a sharp increase since 2016/17Q3. In 2014/15Q4, the admission rates for the most deprived was 24% higher than the least deprived and this increased to 59% in 2017/18Q3.

### Multiple Fall Admissions by Local Community Planning Partnerships

- The number of people that had a single fall within a 2 year period between 2014/15Q4 and 2017/18Q3, as a rate per 1,000 65+ population, increased in Dundee from 18 to 22.1 (an increase of 23%). The biggest increase was in the East End from 16.6 to 25.7 (an increase of 55%).
- The number of people that had two or more falls within a 2 year period between 2014/15Q4 and 2017/18Q3, as a rate per 1,000 65+ population, increased in Dundee from 2.2 to 3.8 (an increase of 73%). The biggest increase was in the West End from 2.4 to 9.6 (an increase of 300%).
- The number of people that had a single fall **in the home** within a 2 year period between 2014/15Q4 and 2017/18Q3, as a rate per 1,000 65+ population, increased in Dundee from 11.9 to 14.1 (an increase of 18%). The East End saw the biggest increase in this period with a 50% increase.
- The number of people that had two or more falls **in the home** within a 2 year period between 2014/15Q4 and 2017/18Q3, as a rate per 1,000 65+ population, increased in Dundee from 1.4 to 2.0 (an increase of 41%). The West End saw the biggest increase in this period with a 196% increase.
- The number of people that had a single fall **not in the home** within a 2 year period between 2014/15Q4 and 2017/18Q3, as a rate per 1,000 65+ population, increased in Dundee from 8.2 to 9.9 (an increase of 21%). The West End saw the biggest increase in this period with a 100% increase.
- The number of people that had two or more falls **not in the home** within a 2 year period between 2014/15Q4 and 2017/18Q3, as a rate per 1,000 65+ population, increased in Dundee from 0.4 to 0.8 (an increase of 100%). The West End saw the biggest increase in this period with a 196% increase (caution should be taken with these figures as the numbers are very small as no LCPP had more than 5 fall admissions in 2017/18Q3).

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### **Number of People Living with a Community Alarm by Local Community Planning Partnerships**

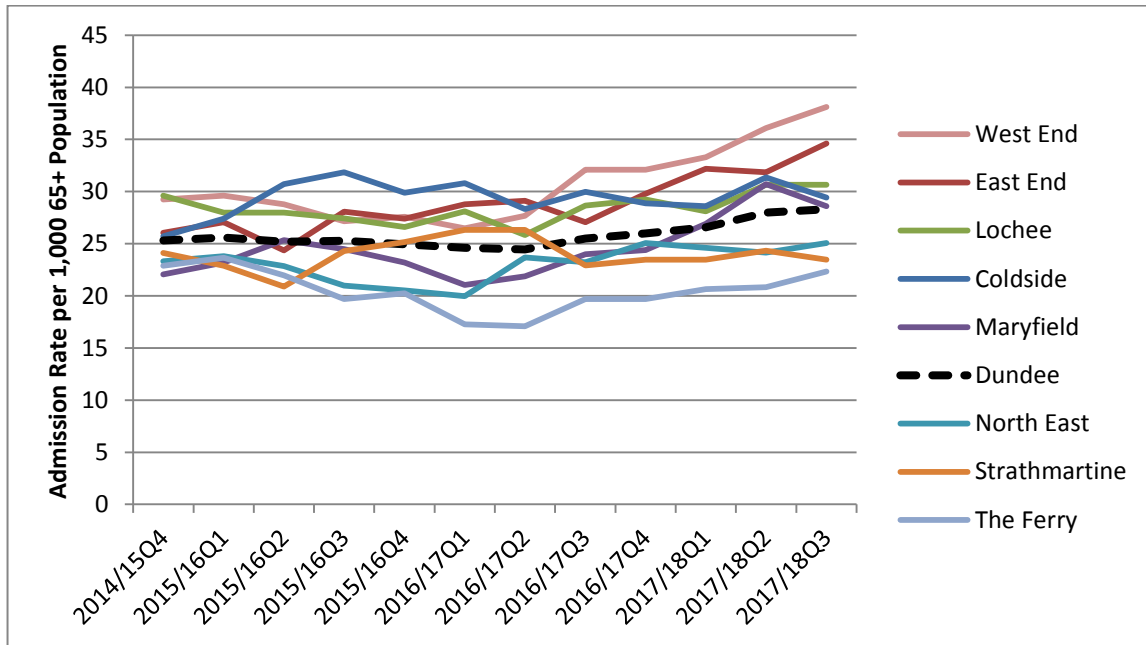
- The number of people living with a community alarm, as a rate per 1,000 65+ population, decreased in Dundee from 30 in 2015/16 to 26 in 2017/18 (a decrease of 16%). Only Coldside saw an increase in the number of people living with a community alarm from 29 per 1,000 65+ population in 2015/16 to 33 in 2016/17. Strathmartine, the Ferry and the West End had the lowest rates in 2016/17 with between 20 and 22 per 1,000 65+ population.

### **Pathways Analysis for Multiple Fall Admissions in the Home in 2016/17**

- In 2016/17 there were 330 people who experienced a single fall admission, 45 people who experienced 2 fall admissions and 17 people who experienced 3 or more falls admissions (all in the home).
- Of the people who had experienced three or more fall admissions in 2016/17, nearly half had a home care package. This fell to around 30% for people who had experienced 2 fall admissions and to 25% for people who had 1 fall admission.
- Arthritis was the most common long term condition for people who experienced a fall admission in 2016/17. For those who experienced 3+ falls, around half had arthritis. Chronic Heart Disease and dementia were also prevalent with over a third of people who experienced multiple falls having one of these conditions.
- People who had a single fall admission in 2016/17 cost the health service on average £18,000. This increased to £25,000 for people who had 2 fall admissions and £27,000 for people who had 3 or more fall admissions.
- The average number of dispensed prescribed items in 2016/17 was 68 for people who had a single fall admission, 93 for those who had 2 fall admissions and 100 for those who had 3+ fall admissions.

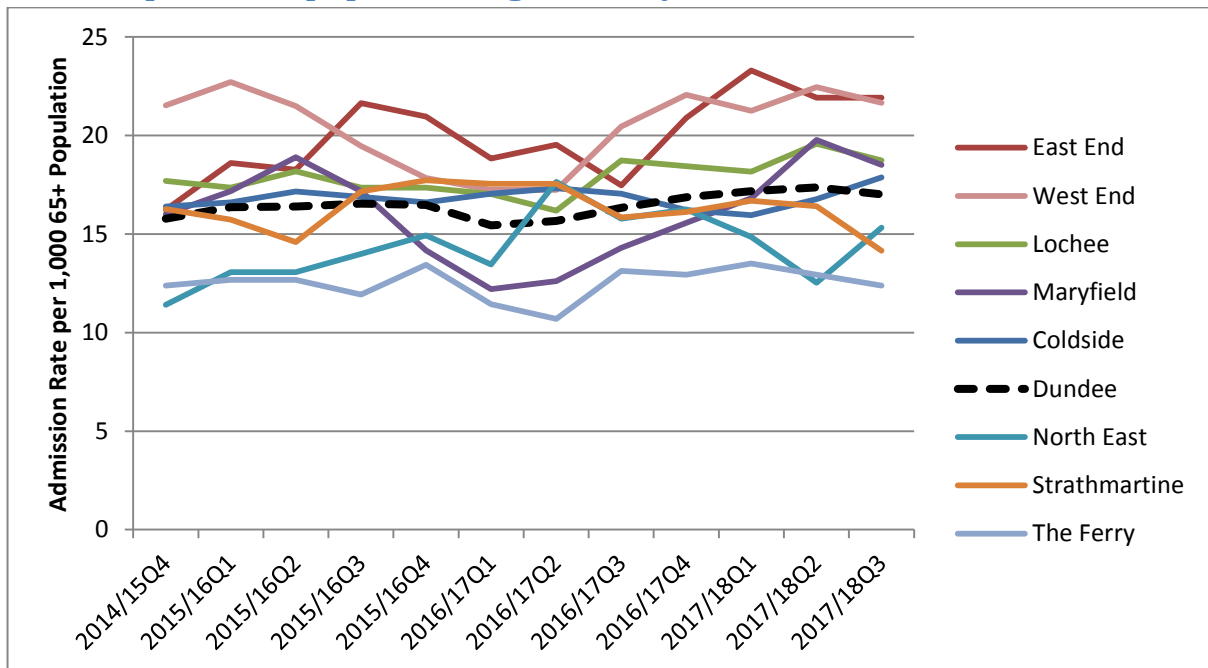
## Fall Admissions by Local Community Planning Partnerships

**Chart 1a: Number of fall admissions in Dundee as a rate per 1,000 population aged 65+ by LCPPs**



Source: SMR01 dataset (ISD)

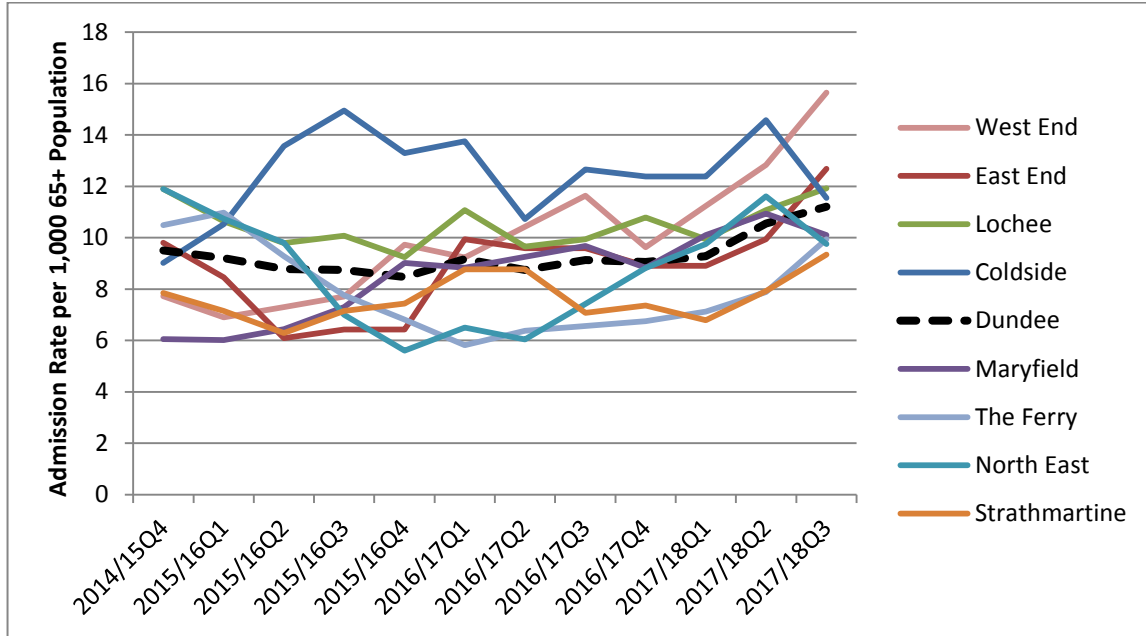
**Chart 1b: Number of fall admissions in Dundee that occurred in the home as a rate per 1,000 population aged 65+ by LCPPs**



Source: SMR01 dataset (ISD)

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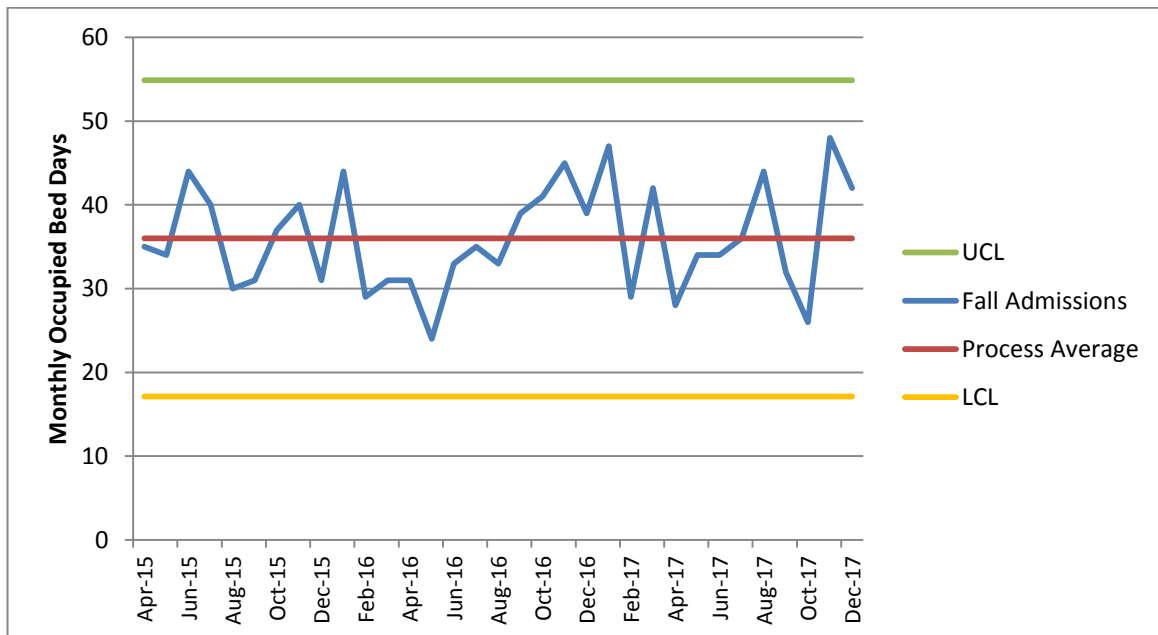
**Chart 1c: Number of fall admissions in Dundee that occurred not in the home or work as a rate per 1,000 population aged 65+ by LCPPs**



Source: SMR01 dataset (ISD)

**Number of Fall Admissions by Month**

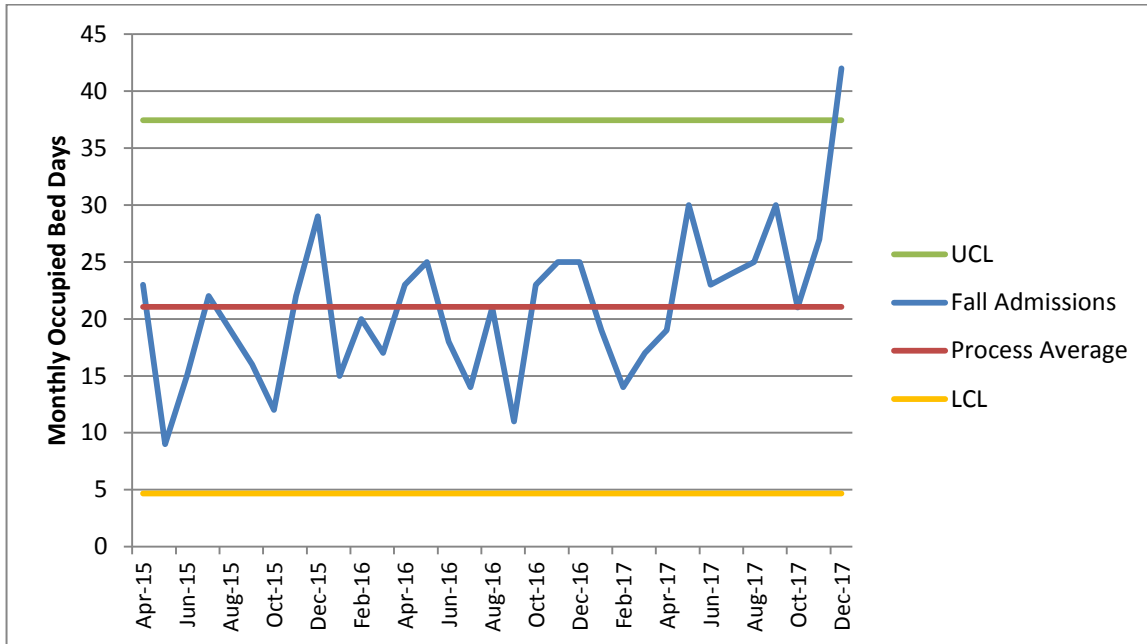
**Chart 2a: Number of monthly fall admissions in Dundee that occurred in the home**



Source: SMR01 dataset (ISD)

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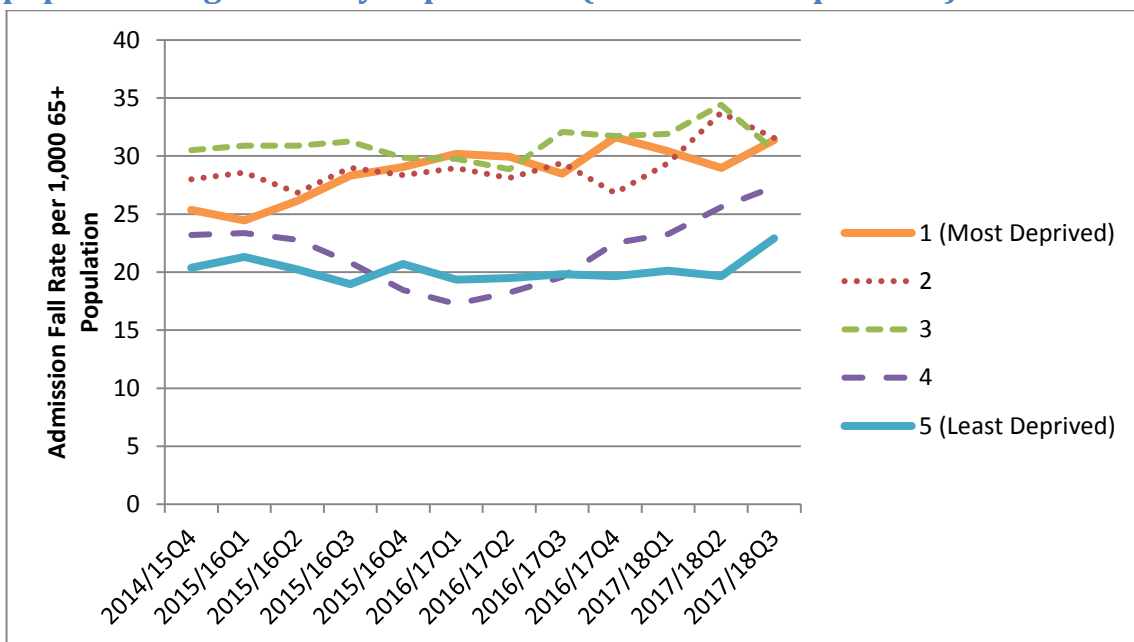
**Chart 2b: Number of monthly fall admissions in Dundee that occurred not in the home or place of work**



Source: SMR01 dataset (ISD)

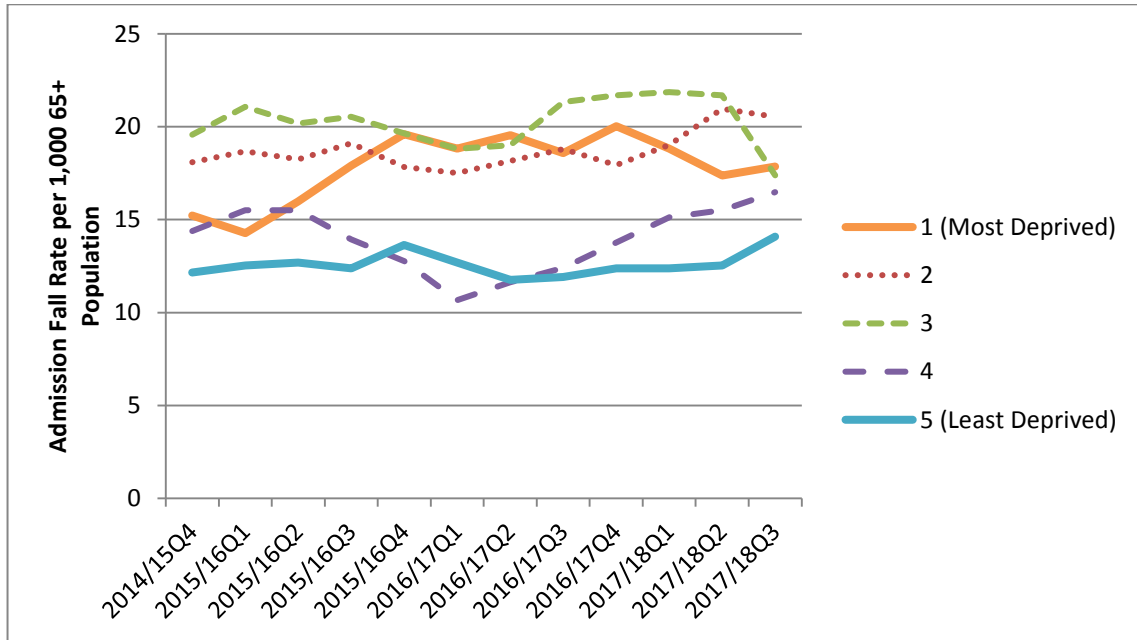
**Fall Admissions by Deprivation (H&SCP SIMD Quintiles)**

**Chart 3a: Number of fall admissions in Dundee as a rate per 1,000 population aged 65+ by deprivation (H&SCP SIMD quintiles)**



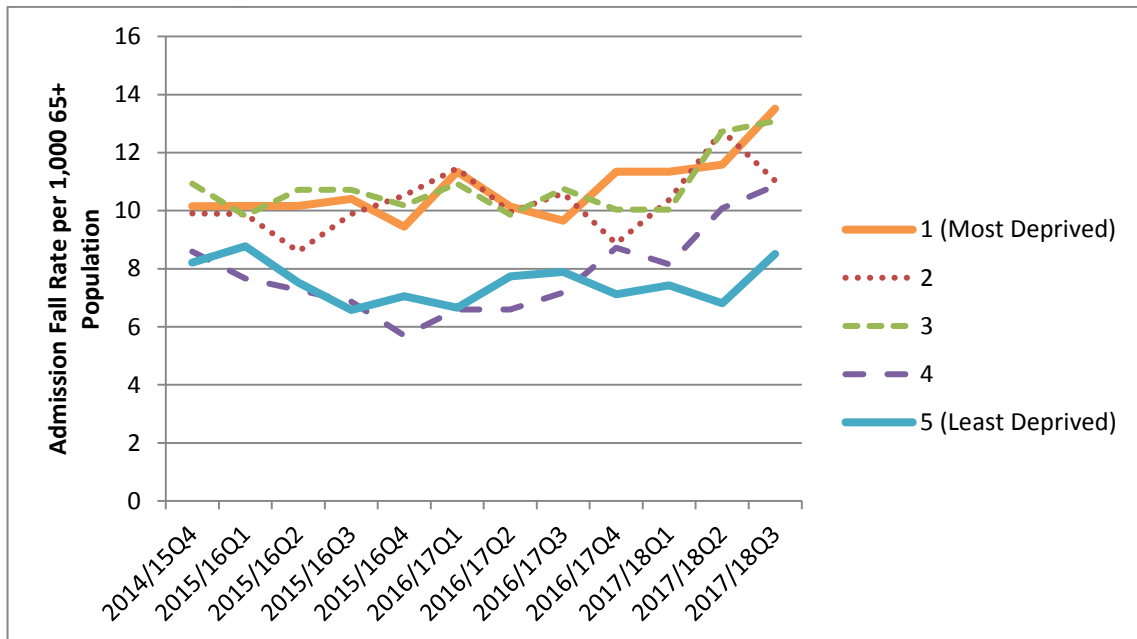
Source: SMR01 dataset (ISD)

**Chart 3b: Number of fall admissions in Dundee that occurred in the home as a rate per 1,000 population aged 65+ by deprivation (H&SCP SIMD quintiles)**



Source: SMR01 dataset (ISD)

**Chart 3c: Number of fall admissions in Dundee that occurred not in the home or work as a rate per 1,000 population aged 65+ by deprivation (H&SCP SIMD quintiles)**

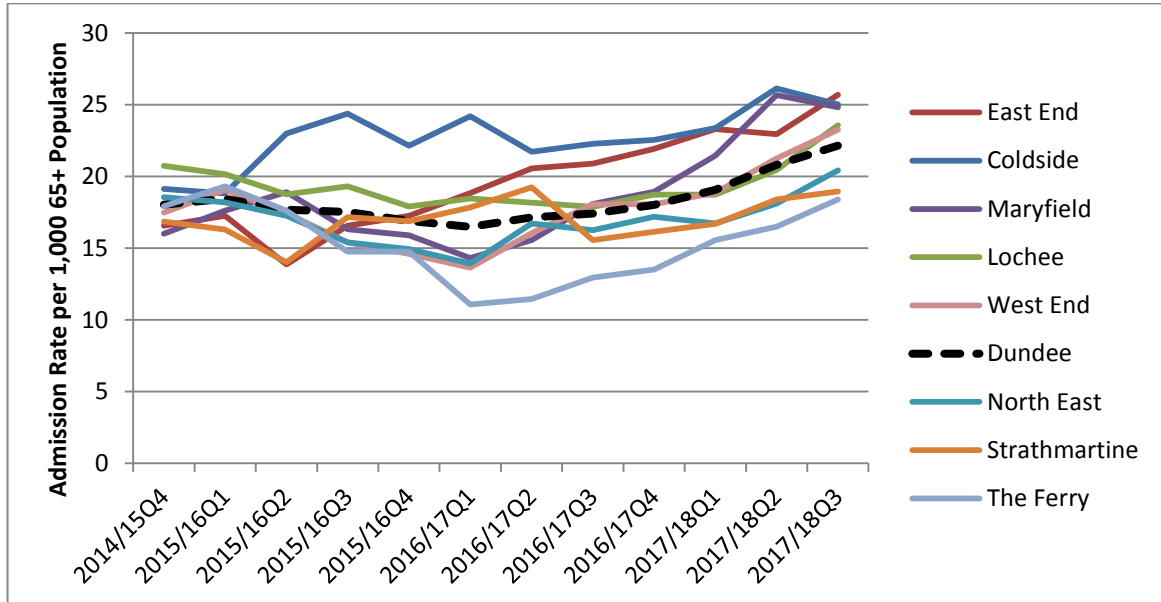


Source: SMR01 dataset (ISD)



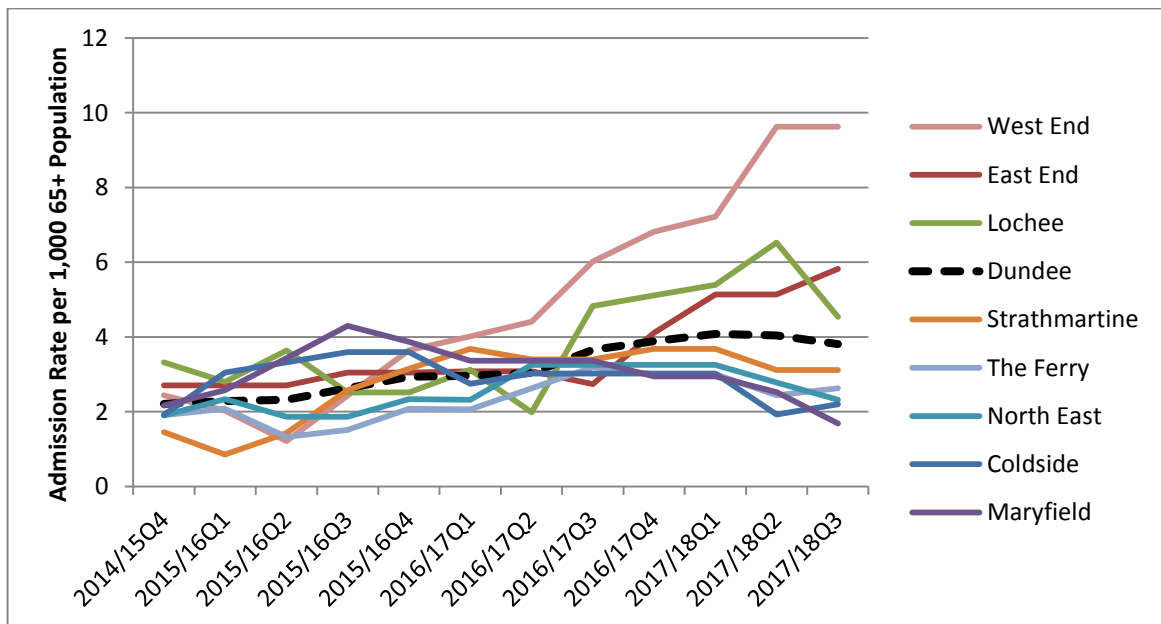
## Multiple Fall Admissions by Local Community Planning Partnerships

**Chart 4a: Number of people aged 65+ that had 1 fall admission in Dundee, within a 2 year period, as a rate per 1,000 65+ population by LCPPs**



Source: SMR01 dataset (ISD)

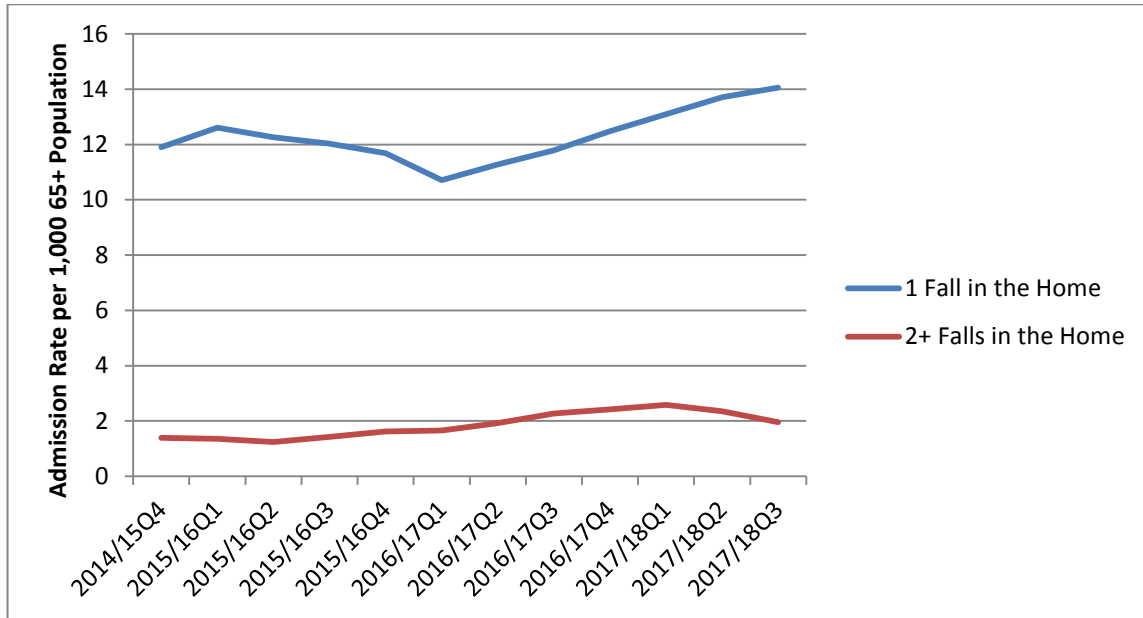
**Chart 4b: Number of people aged 65+ that had 2+ fall admissions in Dundee, within a 2 year period, as a rate per 1,000 65+ population by LCPPs**



Source: SMR01 dataset (ISD)

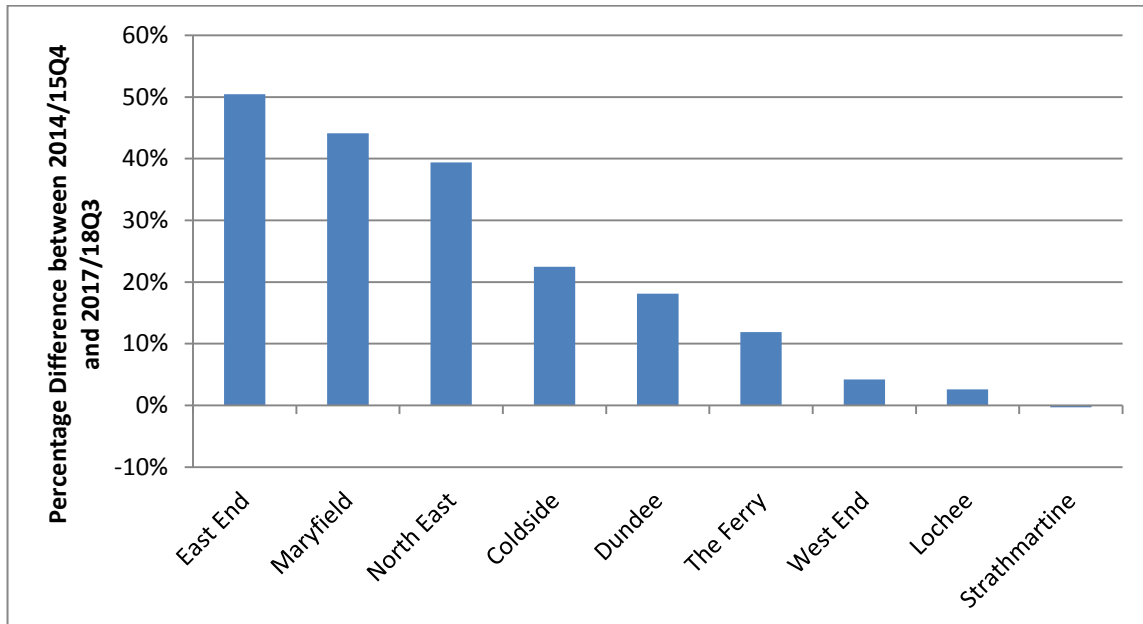
**Local Intelligence Support Team (LIST), ISD Scotland**

**Chart 5a: Number of people aged 65+ that had a fall admission in Dundee that occurred in the home, within a 2 year period, as a rate per 1,000 65+ population**



Source: SMR01 dataset (ISD)

**Chart 5b: Percentage difference in the rate of single fall admissions that occurred in the home between 2014/15Q4 and 2017/18Q3 by LCPPs**

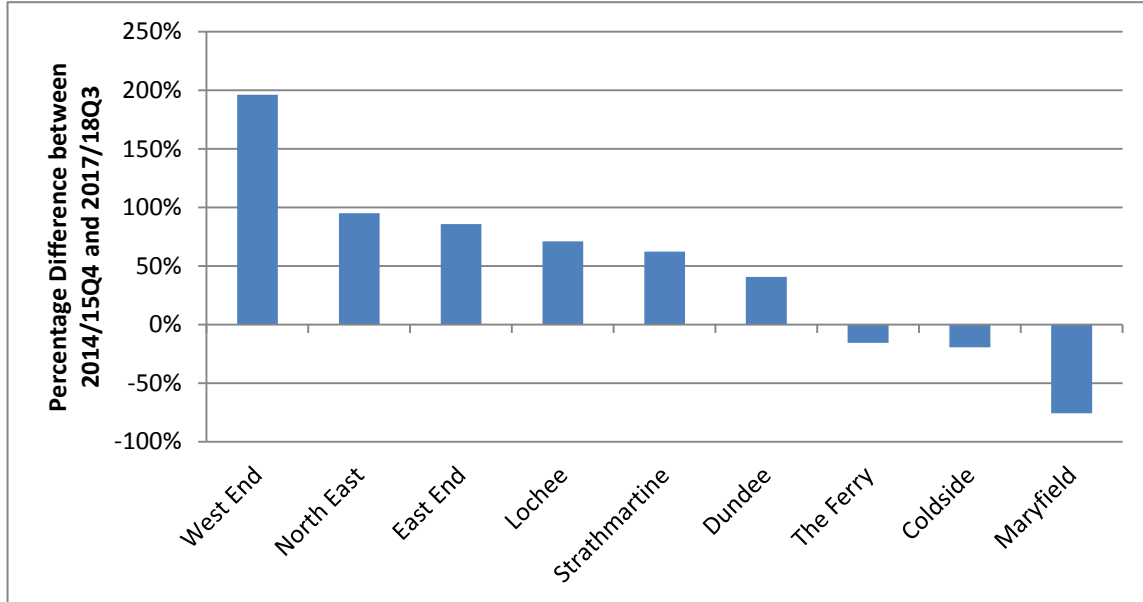


Source: SMR01 dataset (ISD)

Note: In 2017/18Q3 the number of single fall admissions in the home ranged from 30 to 58 across all LCPPs

**Local Intelligence Support Team (LIST), ISD Scotland**

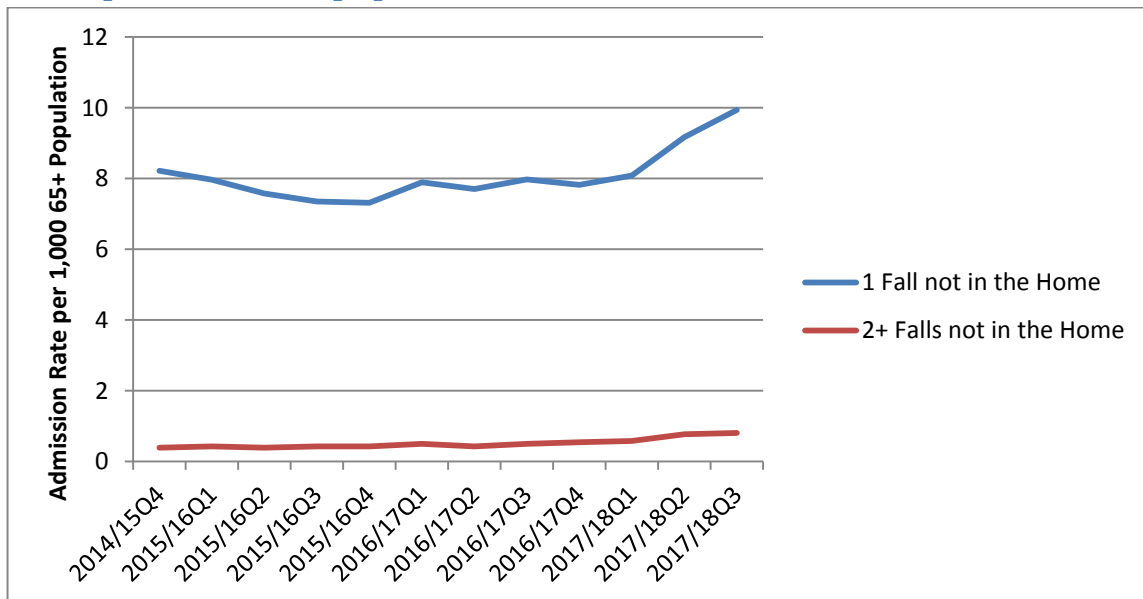
**Chart 5c: Percentage difference in the rate of 2+ fall admissions that occurred in the home between 2014/15Q4 and 2017/18Q3 by LCPPs**



Source: SMR01 dataset (ISD)

Note: In 2017/18Q3 the number of people with a 2+ fall admission in the home ranged had a maximum of 12 across all LCPPs

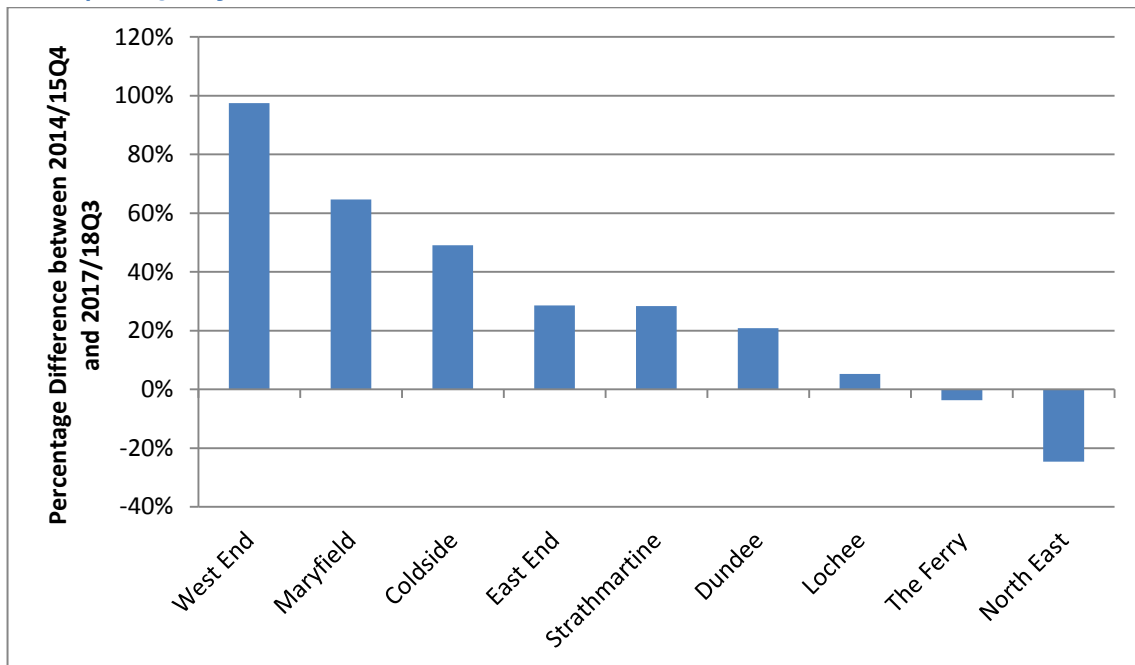
**Chart 6a: Number of people aged 65+ that had a fall admission in Dundee that occurred not in the home or place of work, within a 2 year period, as a rate per 1,000 65+ population**



Source: SMR01 dataset (ISD)

**Local Intelligence Support Team (LIST), ISD Scotland**

**Chart 6b: Percentage difference in the rate of single fall admissions that occurred not in the home or place of work between 2014/15Q4 and 2017/18Q3 by LCPPs**

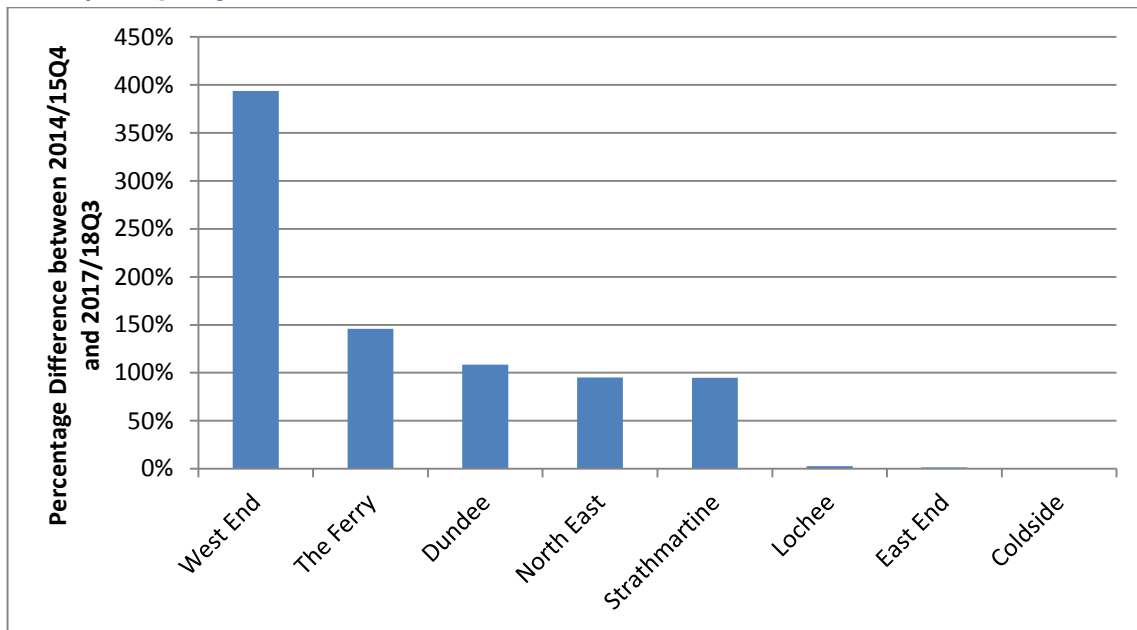


Source: SMR01 dataset (ISD)

Note: In 2017/18Q3 the number of people with a single fall admissions not in the home or place of work ranged from 17 to 47 across all LCPPs

**Local Intelligence Support Team (LIST), ISD Scotland**

**Chart 6c: Percentage difference in the rate of 2+ fall admissions that occurred not in the home or place of work between 2014/15Q4 and 2017/18Q3 by LCPPs**

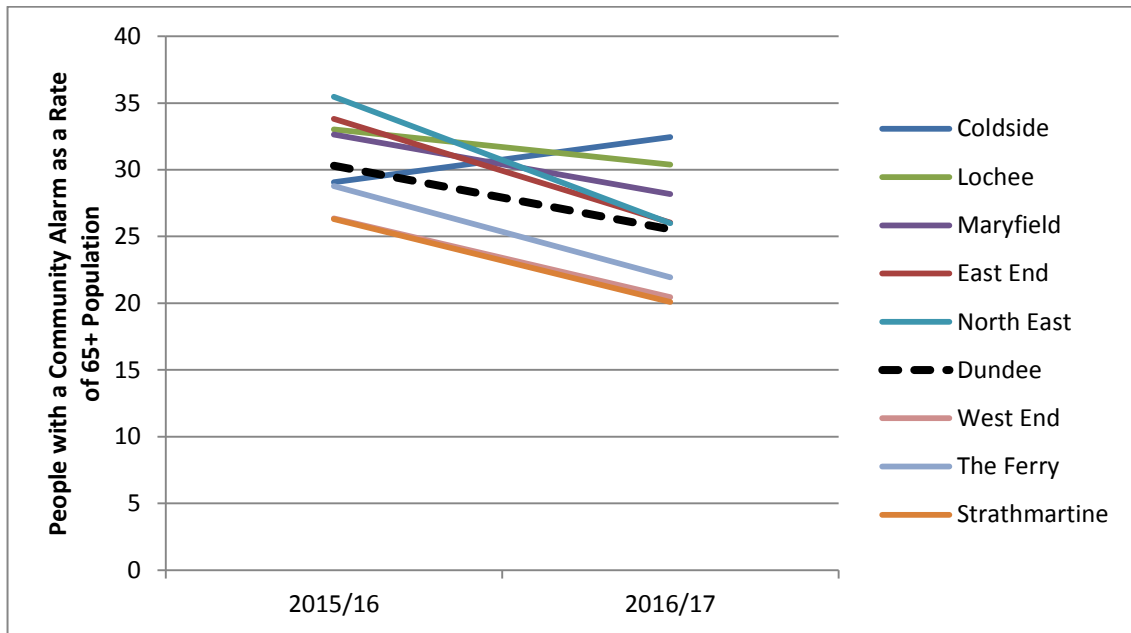


Source: SMR01 dataset (ISD)

Note: In 2017/18Q3 the number of people with a 2+ fall admission that occurred not in the home or place of work had a maximum of 5 across all LCPPs

## Number of People Living with a Community Alarm by Local Community Planning Partnerships

**Chart 7: Number of people aged 65+ living with a community alarm in Dundee as a rate per 1,000 population by LCPP**

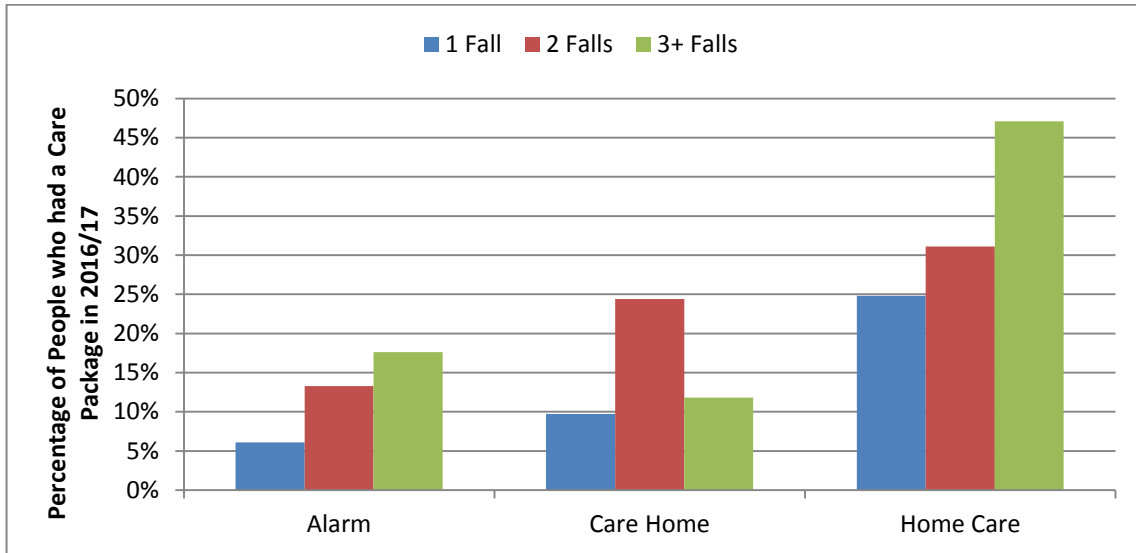


Source: ISD social care datamart - 'Community Alarm' section

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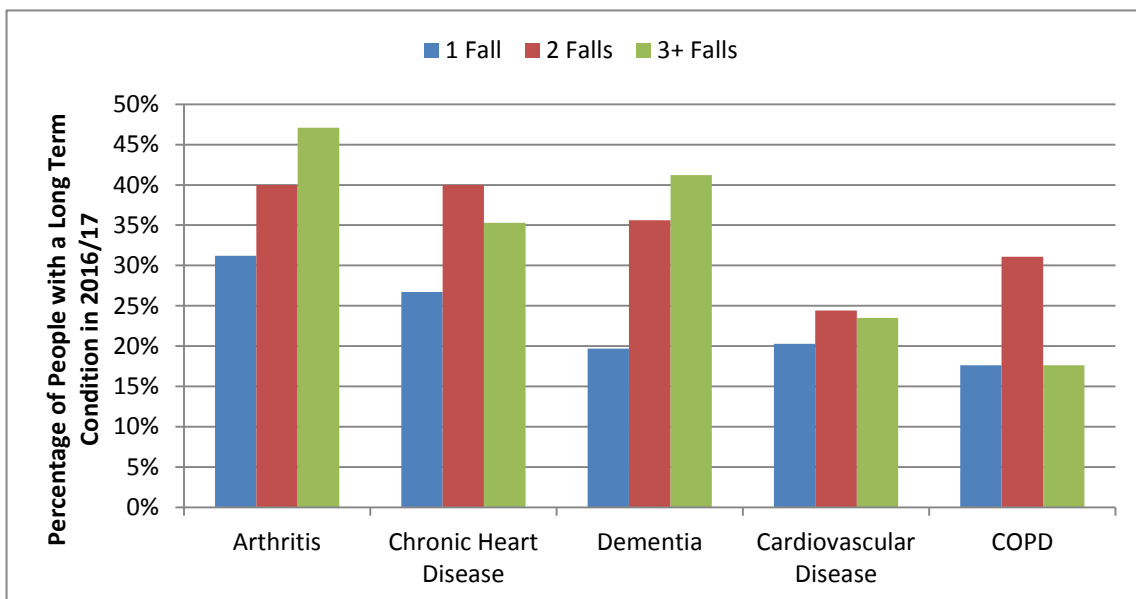
**Pathways Analysis for Multiple Fall Admissions in the Home in Dundee in 2016/17**

**Chart 8a: Percentage of people in Dundee who have had 1, 2 or 3+ fall admissions in the home and who had a social care package in place as at 2016/17**



Source: ISD social care datamart

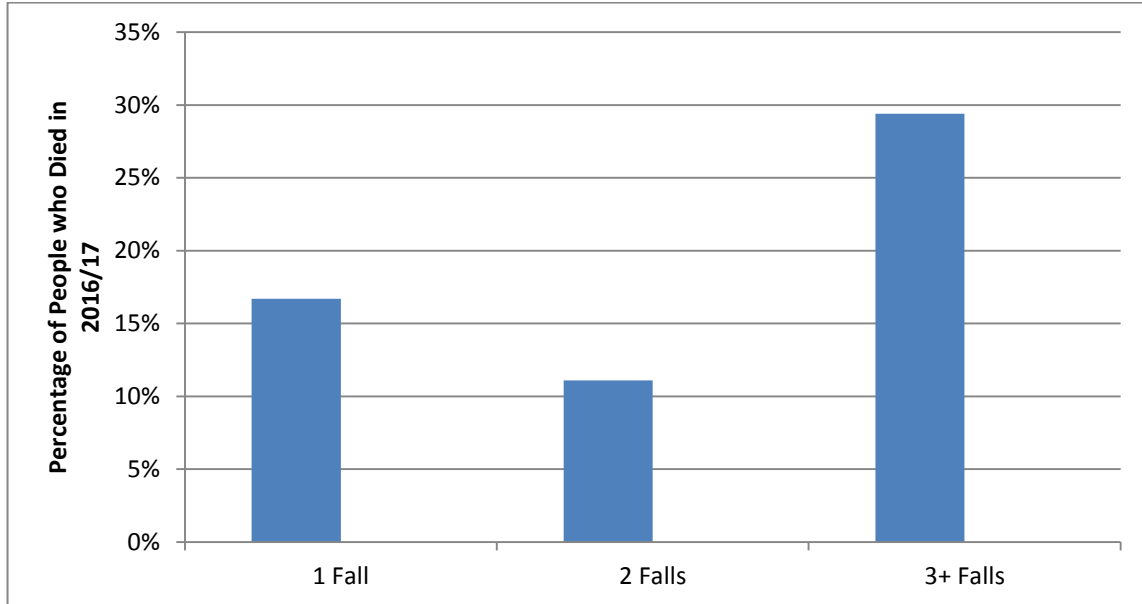
**Chart 8b: Percentage of people in Dundee who have had 1, 2 or 3+ fall admissions in the home and who have a long term condition as at 2016/17**



Source: SMR01 dataset (ISD)

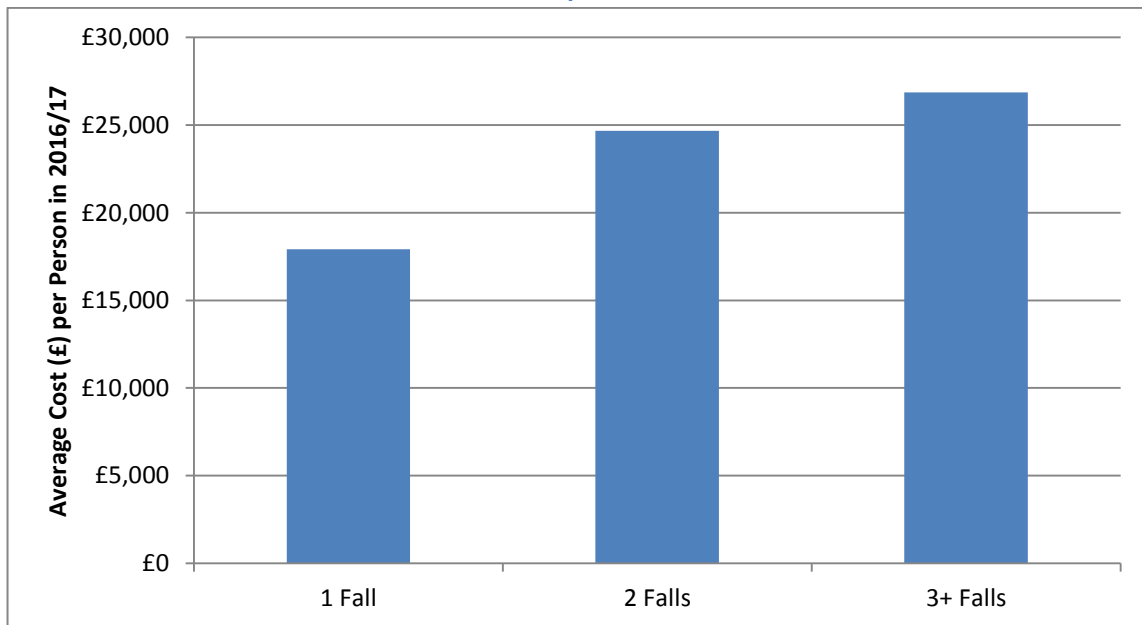
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**Chart 8c: Percentage of people in Dundee who have had 1, 2 or 3+ fall admissions in the home and who have died in 2016/17**



Source: SMR01 dataset (ISD) and National Records of Scotland

**Chart 8d: Average health cost per person in Dundee who had 1, 2 or 3+ fall admissions in the home in 2016/17**

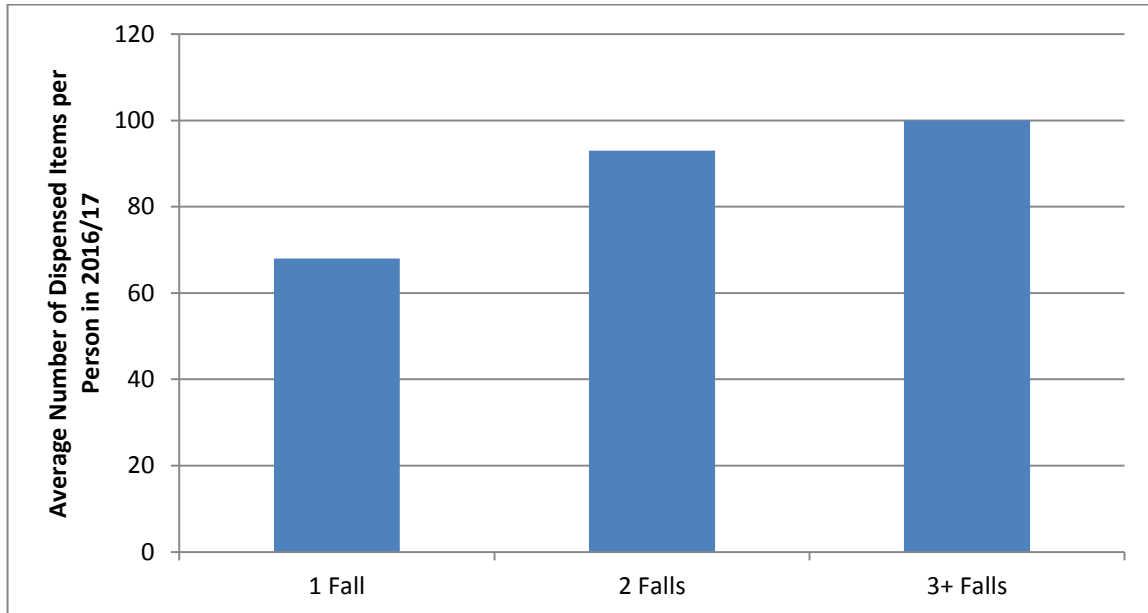


Source: SMR01 dataset (ISD) and Source Linkage File



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**Chart 8e: Average number of dispensed prescriptions for people in Dundee who have had 1, 2 or 3+ fall admissions in the home in 2016/17**



Source: SMR01 dataset (ISD) and Source Linkage File

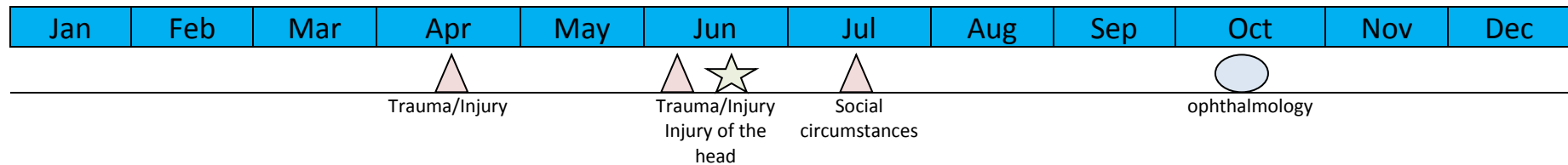
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**Service User Pathway Multiple Fall Admissions in the Home: Example 1**

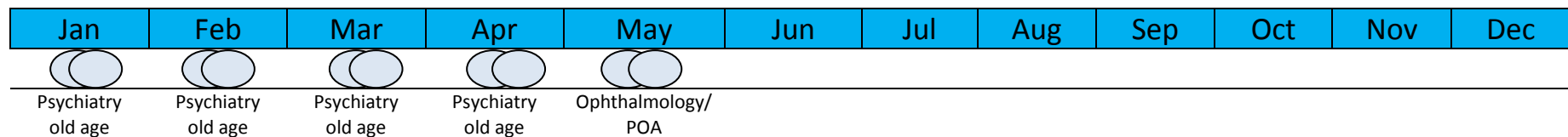
Service User X: Male, 87 years old (as at 2015), has dementia, CHD and renal failure. No home care package.

△ A&E ○ Outpatient ☆ Emergency admission

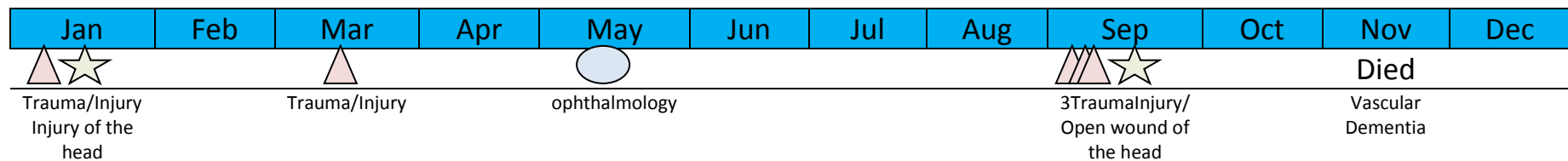
**Year 2015**



**Year 2016**



**Year 2017**



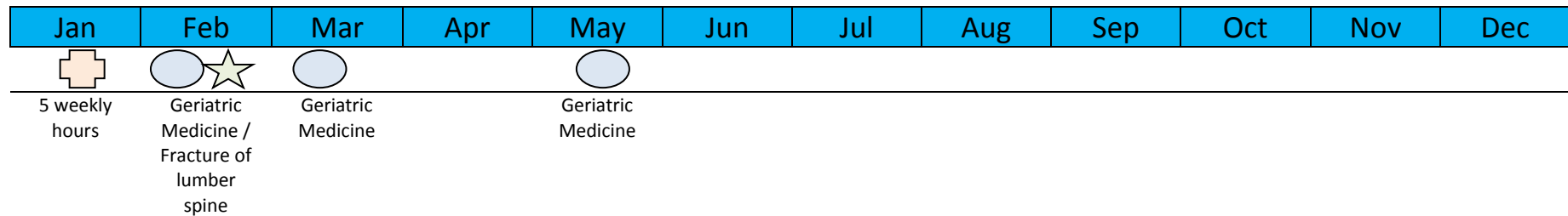
Local Intelligence Support Team (LIST), ISD Scotland

**Service User Pathway Multiple Fall Admissions in the Home: Example 2**

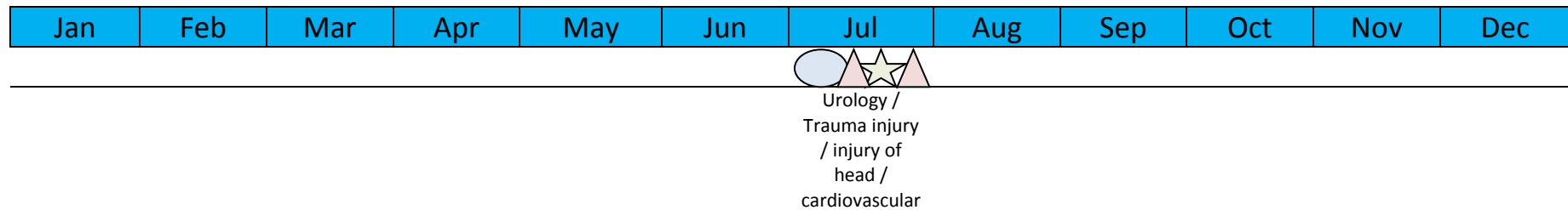
Service User X: Female, 83 years old (as at 2015), has arthritis.

△ A&E ○ Outpatient ☆ Emergency admission ⊕ Home Care

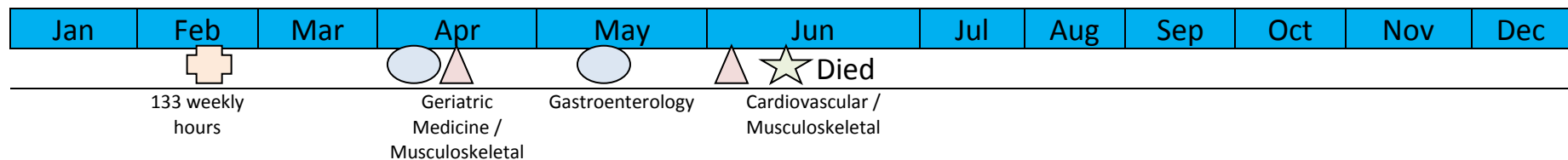
**Year 2015**



**Year 2016**



**Year 2017**



disorders /  
pneumonia

## Appendix A - Data for trend charts 1 to 8

Chart 1a: Number of admissions for falls in Dundee as a rate per 1,000 population aged 65+ by LCPPs

	14/1 5Q4	15/16 Q1	15/16 Q2	15/16 Q3	15/16 Q4	16/17 Q1	16/17 Q2	16/17 Q3	16/17 Q4	17/18 Q1	17/18 Q2	17/18 Q3
Coldside	25.7	27.4	30.7	31.8	29.9	30.8	28.3	30.0	28.9	28.6	31.4	29.4
East End	26.0	27.1	24.3	28.1	27.4	28.8	29.1	27.1	29.8	32.2	31.9	34.6
Lochee	29.6	28.0	28.0	27.4	26.6	28.1	25.8	28.7	29.2	28.1	30.7	30.7
Mary field	22.1	23.2	25.3	24.5	23.2	21.0	21.9	24.0	24.4	26.9	30.7	28.6
North East	23.3	23.8	22.9	21.0	20.5	20.0	23.7	23.2	25.1	24.6	24.1	25.1
Strath martine	24.1	22.9	20.9	24.3	25.2	26.3	26.3	22.9	23.5	23.5	24.3	23.5
The Ferry	22.9	23.7	22.0	19.7	20.3	17.3	17.1	19.7	19.7	20.6	20.8	22.3
West End	29.3	29.6	28.8	27.2	27.6	26.5	27.7	32.1	32.1	33.3	36.1	38.1
Dundee	25.3	25.6	25.2	25.3	24.9	24.6	24.5	25.5	26.0	26.6	28.0	28.3

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Chart 1b: Number of admissions for falls in Dundee that occurred in the home as a rate per 1,000 population aged 65+ by LCPPs

	14/15Q4	15/16Q1	15/16Q2	15/16Q3	15/16Q4	16/17Q1	16/17Q2	16/17Q3	16/17Q4	17/18Q1	17/18Q2	17/18Q3
Coldside	16.4	16.6	17.2	16.9	16.6	17.1	17.3	17.1	16.2	16.0	16.8	17.9
East End	16.2	18.6	18.3	21.6	21.0	18.8	19.5	17.5	20.9	23.3	21.9	21.9
Lochee	17.7	17.4	18.2	17.4	17.4	17.0	16.2	18.7	18.5	18.2	19.6	18.7
Maryfield	16.0	17.2	18.9	17.2	14.2	12.2	12.6	14.3	15.6	16.8	19.8	18.5
North East	11.4	13.1	13.1	14.0	14.9	13.5	17.6	15.8	16.2	14.9	12.5	15.3
Strathmartine	16.3	15.7	14.6	17.2	17.7	17.5	17.5	15.8	16.1	16.7	16.4	14.1
The Ferry	12.4	12.7	12.7	11.9	13.4	11.4	10.7	13.1	12.9	13.5	12.9	12.4
West End	21.5	22.7	21.5	19.5	17.8	17.2	17.2	20.5	22.1	21.3	22.5	21.7
Dundee	15.8	16.4	16.4	16.6	16.5	15.4	15.7	16.3	16.9	17.2	17.4	17.0

Local Intelligence Support Team (LIST), ISD Scotland

Chart 1c: Number of admissions for falls in Dundee that occurred not in the home or place of work as a rate per 1,000 population aged 65+ by LCPP

	14/15Q4	15/16Q1	15/16Q2	15/16Q3	15/16Q4	16/17Q1	16/17Q2	16/17Q3	16/17Q4	17/18Q1	17/18Q2	17/18Q3
Coldside	9.0	10.5	13.6	15.0	13.3	13.8	10.7	12.7	12.4	12.4	14.6	11.6
East End	9.8	8.5	6.1	6.4	6.4	9.9	9.6	9.6	8.9	8.9	9.9	12.7
Lochee	11.9	10.6	9.8	10.1	9.2	11.1	9.7	9.9	10.8	9.9	11.1	11.9
Maryfield	6.1	6.0	6.4	7.3	9.0	8.8	9.3	9.7	8.8	10.1	10.9	10.1
North East	11.9	10.7	9.8	7.0	5.6	6.5	6.0	7.4	8.8	9.7	11.6	9.7
Strathmartine	7.8	7.2	6.3	7.2	7.4	8.8	8.8	7.1	7.4	6.8	7.9	9.3
The Ferry	10.5	11.0	9.3	7.8	6.8	5.8	6.4	6.6	6.8	7.1	7.9	9.9
West End	7.7	6.9	7.3	7.7	9.7	9.2	10.4	11.6	9.6	11.2	12.8	15.6
Dundee	9.5	9.2	8.8	8.7	8.5	9.2	8.7	9.1	9.0	9.3	10.6	11.2

Local Intelligence Support Team (LIST), ISD Scotland

Chart 2a: Number of monthly fall admissions in Dundee that occurred in the home

	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Admissions	35	34	44	40	30	31	37	40	31	44	29	31
	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17
Admissions	31	24	33	35	33	39	41	45	39	47	29	42
	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17			
Admissions	28	34	34	36	44	32	26	48	42			

Chart 2b: Number of monthly fall admissions in Dundee that occurred not in the home or place of work

	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Admissions	23	9	15	22	19	16	12	22	29	15	20	17
	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17
Admissions	23	25	18	14	21	11	23	25	25	19	14	17
	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17			
Admissions	19	30	23	24	25	30	21	27	42			

**Local Intelligence Support Team (LIST), ISD Scotland**

Chart 3a: Number of fall admissions in Dundee as a rate per 1,000 population aged 65+ by deprivation

	<b>14/15Q4</b>	<b>15/16Q1</b>	<b>15/16Q2</b>	<b>15/16Q3</b>	<b>15/16Q4</b>	<b>16/17Q1</b>	<b>16/17Q2</b>	<b>16/17Q3</b>	<b>16/17Q4</b>	<b>17/18Q1</b>	<b>17/18Q2</b>	<b>17/18Q3</b>
1 most deprived	25.4	24.4	26.1	28.3	29.0	30.2	29.9	28.5	31.6	30.4	29.0	31.4
2	28.0	28.6	26.8	29.0	28.4	29.0	28.1	29.4	26.8	29.4	33.7	31.6
3	30.5	30.9	30.9	31.3	29.8	29.8	28.9	32.1	31.7	31.9	34.4	30.5
4	23.2	23.4	22.8	20.8	18.5	17.3	18.2	19.6	22.5	23.3	25.6	27.3
5 least deprived	20.4	21.3	20.2	19.0	20.7	19.3	19.5	19.8	19.7	20.1	19.7	22.9

Chart 3b: Number of fall admissions in Dundee that occurred in the home as a rate per 1,000 population aged 65+ by deprivation

	<b>14/15Q4</b>	<b>15/16Q1</b>	<b>15/16Q2</b>	<b>15/16Q3</b>	<b>15/16Q4</b>	<b>16/17Q1</b>	<b>16/17Q2</b>	<b>16/17Q3</b>	<b>16/17Q4</b>	<b>17/18Q1</b>	<b>17/18Q2</b>	<b>17/18Q3</b>
1 most deprived	15.2	14.3	16.0	17.9	19.6	18.8	19.6	18.6	20.0	18.8	17.4	17.9
2	18.1	18.7	18.3	19.1	17.8	17.5	18.2	18.8	17.9	19.0	21.0	20.5
3	19.6	21.1	20.2	20.5	19.6	18.8	19.0	21.3	21.7	21.9	21.7	17.4
4	14.4	15.5	15.5	13.9	12.8	10.7	11.6	12.4	13.8	15.1	15.5	16.5
5 least deprived	12.2	12.5	12.7	12.4	13.6	12.7	11.8	11.9	12.4	12.4	12.5	14.1



Chart 3c: Number of fall admissions in Dundee that occurred not in the home or place of work as a rate per 1,000 population aged 65+ by deprivation

	14/15 5Q4	15/16 Q1	15/16 Q2	15/16 Q3	15/16 Q4	16/17 Q1	16/17 Q2	16/17 Q3	16/17 Q4	17/18 Q1	17/18 Q2	17/18 Q3
1 most deprived	10.1	10.2	10.2	10.4	9.4	11.3	10.1	9.7	11.3	11.3	11.6	13.5
2	9.9	9.9	8.6	9.9	10.5	11.5	9.9	10.6	8.9	10.4	12.8	11.0
3	10.9	9.8	10.7	10.7	10.2	10.9	9.9	10.8	10.0	10.0	12.7	13.1
4	8.6	7.7	7.3	6.9	5.7	6.6	6.6	7.2	8.7	8.1	10.1	10.9
5 least deprived	8.2	8.8	7.5	6.6	7.1	6.7	7.7	7.9	7.1	7.4	6.8	8.5

Local Intelligence Support Team (LIST), ISD Scotland

Chart 4a: Number of people aged 65+ that had 1 fall admission in Dundee, within a 2 year period, as a rate per 1,000 65+ population by LCPPs

	14/15 5Q4	15/16 Q1	15/16 Q2	15/16 Q3	15/16 Q4	16/17 Q1	16/17 Q2	16/17 Q3	16/17 Q4	17/18 Q1	17/18 Q2	17/18 Q3
Coldside	19.1	18.8	23.0	24.4	22.1	24.2	21.7	22.3	22.6	23.4	26.1	25.0
East End	16.6	17.2	13.9	16.6	17.2	18.8	20.6	20.9	21.9	23.3	23.0	25.7
Lochee	20.7	20.2	18.8	19.3	17.9	18.5	18.2	17.9	18.7	18.7	20.4	23.6
Maryfield	16.0	17.6	18.9	16.3	15.9	14.3	15.6	18.1	18.9	21.5	25.7	24.8
North East	18.6	18.2	17.3	15.4	14.9	13.9	16.7	16.2	17.2	16.7	18.1	20.4
Strathmartine	16.9	16.3	14.0	17.2	16.9	17.8	19.2	15.6	16.1	16.7	18.4	19.0
The Ferry	17.9	19.3	17.6	14.8	14.8	11.1	11.4	12.9	13.5	15.6	16.5	18.4
West End	17.5	19.1	17.4	15.4	14.6	13.6	16.0	18.1	18.1	18.9	21.3	23.3
Dundee	18.0	18.4	17.7	17.5	16.9	16.5	17.1	17.4	18.0	19.1	20.8	22.1

Local Intelligence Support Team (LIST), ISD Scotland

Chart 4b: Number of people aged 65+ that had 2+ fall admissions in Dundee, within a 2 year period, as a rate per 1,000 65+ population by LCPPs

	14/15Q4	15/16Q1	15/16Q2	15/16Q3	15/16Q4	16/17Q1	16/17Q2	16/17Q3	16/17Q4	17/18Q1	17/18Q2	17/18Q3
Coldside	1.9	3.0	3.3	4.2	4.2	2.8	3.0	3.0	3.0	3.0	1.9	2.2
East End	2.7	2.7	2.7	3.0	3.0	3.1	3.1	2.7	4.1	5.1	5.1	5.8
Lochee	3.3	2.8	4.2	2.5	2.5	3.1	2.0	4.8	5.1	5.4	7.1	4.5
Maryfield	2.2	2.6	3.4	4.3	3.9	3.4	3.4	3.4	2.9	2.9	2.5	2.1
North East	2.4	2.3	2.3	2.3	2.3	2.3	3.2	3.2	3.2	3.2	2.8	2.3
Strathmartine	1.5	1.4	1.4	2.6	3.1	4.2	3.4	3.4	4.2	4.2	3.1	3.1
The Ferry	1.9	2.1	1.3	1.5	2.1	2.1	2.8	3.2	3.0	3.0	2.8	2.8
West End	2.4	2.0	2.0	2.4	3.6	4.0	4.4	6.0	6.8	7.2	10.0	10.0
Dundee	2.2	2.3	2.3	2.6	2.9	3.0	3.0	3.7	3.9	4.1	4.0	3.8

Note: fall admissions less than 5 have been increased to 5 (minimum was 3 falls)

Local Intelligence Support Team (LIST), ISD Scotland

Chart 5a: Number of people aged 65+ that had a fall admission Dundee that occurred in the home, within a 2 year period, as a rate per 1,000 65+ population

	14/15 5Q4	15/16 Q1	15/16 Q2	15/16 Q3	15/16 Q4	16/17 Q1	16/17 Q2	16/17 Q3	16/17 Q4	17/18 Q1	17/18 Q2	17/18 Q3
1 Fall Adm	11.9	12.6	12.3	12.0	11.7	10.7	11.3	11.8	12.5	13.1	13.7	14.1
2+ Fall Adm	1.4	1.4	1.2	1.4	1.6	1.7	1.9	2.3	2.4	2.6	2.3	2.0

Chart 6a: Number of people aged 65+ that had a fall admission Dundee that occurred not in the home or place of work, within a 2 year period, as a rate per 1,000 65+ population

	14/15 5Q4	15/16 Q1	15/16 Q2	15/16 Q3	15/16 Q4	16/17 Q1	16/17 Q2	16/17 Q3	16/17 Q4	17/18 Q1	17/18 Q2	17/18 Q3
1 Fall Adm	8.2	8.0	7.6	7.3	7.3	7.9	7.7	8.0	7.8	8.1	9.2	9.9
2+ Fall Adm	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.6	0.8	0.8

Chart 7: Number of people aged 65+ living with a community alarm in Dundee as a rate per 1,000 population by LCPPs

	People aged 65+ with Alarm in 2015/16	Rate per 1,000 65+ Population in 2015/16	People aged 65+ with Alarm in 2016/17	Rate per 1,000 65+ Population in 2016/17
Coldside	105	29.1	118	32.5
East End	100	33.8	76	26.0
Lochee	118	33.0	107	30.4
Maryfield	76	32.6	67	28.2
North East	76	35.5	56	26.0
Strathmartine	92	26.3	71	20.1
The Ferry	152	28.8	117	21.9
West End	65	26.4	51	20.5
Dundee	784	30.3	663	25.5

Charts 8a-8e: Pathways Analysis for Multiple Fall Admissions in the Home in Dundee in 2016/17

	1 Fall as at 2016/17	2 Falls as at 2016/17	3+ Falls as at 2016/17
Patients	330	45	17
Died	55 (16.7%)	5 (11.1%)	5 (29.4%)
Community Alarm	20 (6.1%)	6 (13.3%)	3 (17.6%)
Care Home	32 (9.7%)	11 (24.4%)	2 (11.8%)
Home Care	82 (24.8%)	14 (31.1%)	8 (47.1%)
Arthritis	103 (31.2%)	18 (40%)	8 (47.1%)
Dementia	65 (19.7%)	16 (35.6%)	7 (41.2%)
Chronic Heart Disease	88 (26.7%)	18 (40%)	6 (35.3%)
Chronic Vascular Disease	67 (20.3%)	11 (24.4%)	4 (23.5%)
COPD	58 (17.6%)	14 (31.1%)	3 (17.6%)
Total Health Cost in 2016/17	£5,913,868	£1,110,552	£456,614
Average Health Cost	£17,920.81	£24,678.93	£26,859.62
Total Number of Dispensed Prescriptions in 2016/17	22,565	4,163	1,693
Average Number of Dispensed Prescriptions	68	93	100