
An outcome-focused evaluation of High Life: Highland's Falls Prevention Programme

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What Works Scotland (WWS) aims to improve the way local areas in Scotland use evidence to make decisions about public service development and reform.

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- better understand what effective policy interventions and effective services look like
- promote the use of evidence in planning and service delivery
- help organisations get the skills and knowledge they need to use and interpret evidence
- create case studies for wider sharing and sustainability

A further nine areas are working with us to enhance learning, comparison and sharing. We will also link with international partners to effectively compare how public services are delivered here in Scotland and elsewhere. During the programme, we will scale up and share more widely with all local authority areas across Scotland.

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- Improvement Service
- Inspiring Scotland
- IRISS (Institution for Research and Innovation in Social Services)
- NHS Education for Scotland
- NHS Health Scotland
- NHS Health Improvement for Scotland
- Scottish Community Development Centre
- SCVO (Scottish Council for Voluntary Organisations)

This is one of a series of papers published by What Works Scotland to share evidence, learning and ideas about public service reform. This paper relates to the What Works Scotland Evidence to Action workstream.

This paper is based on an **Evidence to Action** project led by Dr Sarah Morton from the University of Edinburgh (please note two people with this name involved in this project). The project was directed by Ailsa Cook of Outcome Focus (www.outcomefocus.org) and carried out by Dr Wendy Maltinsky and Dr Sarah Morton (2) from the University of the Highlands and Islands in partnership with colleagues from Highland High Life (see acknowledgements)

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About this Report

This report presents learning from an evaluation, conducted during April to July 2017, of the exercise classes to support falls reduction in older adults delivered by High Life Highland in leisure centres, community centres and care centres in the Highland region. The overall objective of the evaluation was to identify and evidence outcomes that have been achieved by offering this type of exercise programme, and to establish opportunities for sustaining and scaling up the existing offering.

This was one of four evidence to action projects that were coordinated by What Works Scotland. The projects ran from 2016 to 2017. All of the projects aimed to explore how evidence can help public sector reform and inform public sector practice. They all involved evidence review as well as support from evidence providers to implement or act on the evidence via developing evidence based tools, workshops to plan how to move from evidence to action, action orientated reports and so on. The four projects involved a range of public sector partners including South Ayrshire Council, High Life Highland, Healthcare Improvement Scotland, NHS Health Scotland and various academic institutions.

The evaluation was carried out by Dr Ailsa Cook (Outcome Focus), Dr Sarah Morton (Rural Health and Wellbeing, University of the Highlands and Islands), and Dr Wendy Maltinsky (Health Psychology, University of the Highlands and Islands). Lynn Bauermeister and Kelly Skinner (High Life Highland) played a significant role in the process, developing the theory of change and refining their data collection processes to get information about the service that has contributed to this report.

The findings from the evaluation are summarised in five chapters:

Chapter 1: provides the background to the project and evaluation, and overview of the research methodologies used.

Chapter 2: contextualises the later findings, and presents data collected during the interviews and focus groups.

Chapter 3: presents an overview of the contribution analysis and the theory of change that the exercise programme is based on, including detailed risks and assumptions underpinning the theory.

Chapter 4: presents the overall findings from the evaluation.

Chapter 5: presents a series of case studies – the first series representing individual experiences, and the second, outlining the general experiences of participants at exercise class location where a focus group was hosted.

Chapter 6: presents our conclusions, recommendations, and reflects on the wider implications of the learning.

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Executive Summary

High Life Highland currently delivers a suite of exercise classes to support falls reduction in older adults. These are designed to support falls reduction by improving balance, posture, strength and through increasing understanding of how best to prevent falls and to recover after a fall. In order to establish the value of the classes, and to determine the viability of increasing provision, this High Life Highland (HLH) Falls Reduction Programme evaluation was undertaken.

Benefits, barriers and facilitators

The focus of the evaluation was to demonstrate whether the programme was contributing toward successful falls reduction and falls rehabilitation for older adults and hence to understand those benefits that could be achieved by participating in the exercise classes, as well as any barriers to participation. It was also important to consider what needed to be in place in order to deliver a successful programme that would meet the needs of participating older adults. A team consisting of staff members from High Life Highland, researchers from the University of the Highlands and Islands, and with input and guidance from What Works Scotland and Outcome Focus undertook to identify the evaluation processes and data collection methods.

The evaluation processes drew on existing data that HLH had already gathered as part of their routine work, as well as implementing additional methods to collect data where evidence gaps existed. Interviews, focus groups, questionnaires, exercise class instructor reflective logs, attendance registers and 'balance tests' data were collected from class participants, care staff, and exercise class instructors to contribute to a deeper understanding of the delivery of the exercise classes to support falls reduction in older adults.

Benefits

The cumulative data pointed to substantial benefits of attending the classes:

Physical and Wellbeing Benefits: Classes were well received by participants and seen to have both physical benefits and wellbeing value, which was corroborated by views of care home staff and exercise class instructors and the physical balance tests. The physical

benefits included an increased sense of confidence, increased engagement in other activities out with the classes, improved knowledge and strategies to both preventing falls and knowing how to deal with one, as well as improved balance and posture.

Barriers

Demand: Some participants noted that they would attend the classes on a more regular basis (i.e. more than once per week) given an opportunity to do so. High demand of places at day care facilities meant that places were at a premium and many participants were unable to increase the number of days on which they attend despite an interest in doing so.

Confidence: For those participants with low confidence, it might be difficult to get the confidence to attend an already established group who were already capable of doing the exercises.

Transport: Transportation for some individuals was necessary to allow them to attend classes. This was a potential barrier where there was limited public transport options, or they did not have access to private transport.

Ill-health: Ill/poor health was considered to be a risk that generally was unpredictable and would not be modifiable.

Facilitators

In order for the service to be delivered at a high standard, the following needs to be in place:

- **Staff Expertise:** Staff need to be appropriately trained and there has to be sufficient numbers of staff to meet the current demand. To sustain the high quality of provision, it would be important to ensure that any new members of staff have completed the appropriate training courses.
- **Venues for delivery of classes:** Having suitable venues to deliver the classes is important. Classes are currently delivered in a range of settings including High Life Highland venues, care settings, day care facilities and town/community halls.
- **Transportation to venues for class participants unable to travel on their own:** Suitable arrangements for transportation to venues or delivering classes where older adults will be (i.e. at day care facilities) facilitates attendance to the classes.

- **Awareness of classes:** People need to be aware of the classes. HLH have undertaken advertisement through posters, taster sessions and through contacting other health services, as well as word of mouth and attendance at special events.
- **Time for socialising:** The value of the social component of the class was on a par with the physical benefits for many participants.

Implications and recommendations for future

HLH currently deliver a high-quality programme to several venues through Highland which support falls reduction for older adults. The classes are well received and contribute to both the physical and mental health and wellbeing of those who attend.

- To sustain the programme at current delivery levels, it would be important to maintain the high quality of staff competencies and skills; engagement in ongoing training and/or reflective logs may assist with this. Similarly, any new staff joining the team should be supported to achieve the same level of competency and have completed appropriate training.
- Existing procedures for checking venues and transportation would need to be maintained to ensure that those who require assistance are able to access this.
- Ongoing promotional activities should be continued to raise awareness of the classes on a continuous basis.
- The mix of social opportunities and physical activities should be sustained to cater for the physical and wellbeing outcomes that the programme contributes toward.

To broaden the provision of the service, the following additional points could be considered:

- Some individuals may feel less confident attending a large group. Some form of stepped provision, perhaps with small groups, or a partnering system could be considered to increase confidence in the exercises, as well as being part of a larger group.
- Provision in more remote and rural areas may be facilitated through having a mobile exercise instructor who could travel to different locations in Highland, as well as some form of cascading of training to care staff.
- Further strengthening of relationships with health and social care agencies and organisations will help to increase signposting of individuals to classes.

1.0 Chapter One

1.1 Background

High Life Highland (HLH) have collaborated with What Works Scotland (WWS) and the University of Highlands and Islands (UHI) to:

Objectives of the High Life Highland Falls Prevention Programme Evaluation

- Examine the delivery of the exercise programme to support the falls reduction and promote wellbeing amongst older people in Highland; and
- Evaluate the effectiveness of this programme.

The HLH Team have been working for more than four years to develop and deliver gentle exercise classes to older people across Highland. The exercise programme is underpinned by evidence:

- Falls are a significant public health concern. About one in three people over the age of 65 will experience a fall each year, increasing to one in two for those over 80 years of age.¹
- Falls and fractures present a serious threat to older people's health, wellbeing and independence. Falls can cause pain, distress, loss of confidence, and can be life threatening, yet they are preventable.²
- There is considerable evidence to suggest that exercise programmes designed to improve strength and balance, delivered over several weeks or months by a local service can lead to a reduction in falls.³

The HLH exercise classes to support falls reduction in older adults are delivered by qualified leisure instructors who have received a range of training including: adapting exercise for older adults, the Otago Exercise Programme, and Postural Stability. The activities are tailored to the specific strengths and abilities of the class participants. Classes for people

¹ Department of Health, 2014: <https://publichealthmatters.blog.gov.uk/2014/07/17/the-human-cost-of-falls/>

² Department of Health, 2012; <https://www.gov.uk/government/news/better-care-to-prevent-falls-and-fractures-will-improve-lives-and-save-the-nhs-billions>

³ Age UK, 2013; https://www.ageuk.org.uk/globalassets/age-uk/documents/reports-and-publications/reports-and-briefings/health--wellbeing/rb_2013_falls_prevention_guide.pdf

living in a care home are predominantly chair based for example, while exercise classes carried out in local leisure centres include more diverse aspects, such as aqua aerobics and circuit training classes. The classes are delivered in a range of locations to ensure accessibility; this includes thirteen care homes and day care centres, eleven HLH leisure centres and four community venues (e.g. village halls). The team engage in regular outreach activities (Figure 1), for example, talks at lunch clubs, self-management groups, events and conferences to promote the benefits of exercise to older people. They also offer 'taster' sessions at events such as *Safe Highlander* – an annual event, run by local agencies, to promote health and safety within the local community.



Figure 1: Example of an awareness raising poster used by HLH to promote the exercise classes to support falls reduction in older adults

The project team recognise the social value of the classes to the participants. This has emerged through feedback from class participants. Many people come to exercises classes for the social benefit they achieve through regularly attending and getting to know others who are in a similar situation and/or with similar interests. As such, many of the exercise

classes to support falls reduction in older adults include some time at the end of the class for the participants to chat over a cup of tea and a biscuit. During these parts of the sessions, exercise class instructors both prompt discussion about falls related issues as well as encourage discussion about general health and wellbeing. Adding this component to the programme has been hugely successful and well received, and exercise class instructors indicate that some of the class participants make an effort to share baking duties on a rotational basis, adding a more personal component to these 'social' sessions.

Given the complexity of the programme and the context in which this evaluation is being undertaken, it was agreed that contribution analysis⁴ would be used. This framework-based approach to evaluation involves two main stages. The first stage involves working collaboratively with key stakeholders to map the ways in which the pilot contributes to the intended outcomes and the ways in which this is supported or hindered by a wide range of contextual factors. This logic is then tested in the evaluation through various forms of data collection with participants and other stakeholders.

The purpose of this report is to summarise the contextual factors that have been found in the first phase of the evaluation to support older people to engage with the exercise programme. The context and development of results chains were captured in a workshop with the High Life Highland public health lead, the exercise lead, and an experienced exercise class instructor. They were facilitated by Dr Ailsa Cook from Outcome Focus (working with WWS). Also participating were Dr Sarah Morton (Rural Health and Wellbeing), and Dr Wendy Maltinsky (Health Psychology) from the University of the Highlands and Islands who acted as the external independent evaluators.

1.2 ISM (Individual, Social, Material) Model

The ISM model highlights the interplay of factors operating in different contexts and the way they shape individual behaviour. As such it provides a tool to start to unpack the complex relationships between different aspects of a system and how they may impact on decisions taken by individuals which may help or hinder implementation. In the context of the exercise classes delivered by HLH to support falls reduction in older adults, it is a

⁴ Mayne, J. (2008) *Contribution Analysis: An approach to exploring cause and effect*. Methodological brief, ILAC, London. [http://www.cgiar-ilbriefs/ILAC Brief16 Contribution Analysis.pdf](http://www.cgiar-ilbriefs/ILAC%20Brief16%20Contribution%20Analysis.pdf)
[ac.org/files/publications/](http://www.whatworksscotland.ac.org/files/publications/)

valuable framework to consider the individual, social and environmental factors that contribute to the effectiveness of the classes. Similarly, the ISM framework, as has been applied elsewhere, assists in being able to examine in what ways the programme can be improved to meet the needs of participants and potential participants.

The ISM model was used as a framework to structure the analysis of the data and also to guide discussion in the workshop on barriers and enablers to preventing falls. The ISM model is based on a synthesis of more than 60 different behaviour change approaches (¹Darnton, 2008) and was developed by the Scottish Government and Andrew Darnton in 2013. The model identifies three important contexts when understanding a particular behaviour or set of behaviours: the Individual, the Social and the Material (¹Darnton and Horne, 2013). Within each context are a range of factors shown through research to influence behaviour. These are summarised in Figure 2.



Figure 2: ISM Behaviour Change Model (Darnton and Horne, 2013)

The challenges and supports for falls prevention were mapped to the ISM over two stages. In the first instance, the model was discussed in a workshop with the researchers from UHI, the ISM facilitators and key personnel from High Life Highland.

A second, more detailed workshop was carried out at a later date and included the same members, as well as High Life Highland exercise class instructors. At the second workshop the model was examined in more detail, and the following established:

- Clarification of what can be defined as a falls prevention exercise programme.
- Perceptions of the barriers and facilitators in the social, individual, and material contexts to participating in a falls prevention programme.

1.3 Findings from Team Workshop

Barriers and facilitators to participating in classes to support falls reduction in older adults were considered during the team workshops. This helped to inform an understanding of those assumptions that were required to be tested in order to ensure that the anticipated outcomes were being achieved by HLH. Similarly, the workshops allowed the team to consider the range of people and organisations that might be required to implement, deliver, and achieve a successful falls prevention programme in the Highland area. Tables 1, 2, and 3 below provide a summary of these team workshops.

Table 1: Factors arising in an individual context influencing the participation of older people in the programme

ISM factor	Key findings
Values, beliefs and attitudes	<ul style="list-style-type: none"> • The team reported that the values, beliefs and attitudes that older people have to exercise influences their participation. For some people exercise is new and intimidating. and it takes time to build trust with the instructors to feel comfortable in the class. • Participants also need to believe that they can exercise again and that it is possible to regain strength and mobility. • Attitudes of family to exercise can also be important in influencing an older person's attendance.
Costs and benefits	<ul style="list-style-type: none"> • It's medically proven that people who do regular physical activity have: <ul style="list-style-type: none"> ➤ up to a 35% lower risk of coronary heart disease and stroke ➤ up to a 50% lower risk of type 2 diabetes ➤ up to a 50% lower risk of colon cancer ➤ up to a 20% lower risk of breast cancer ➤ a 30% lower risk of early death ➤ up to an 83% lower risk of osteoarthritis ➤ up to a 68% lower risk of hip fracture ➤ a 30% lower risk of falls (among older adults) ➤ up to a 30% lower risk of depression ➤ up to a 30% lower risk of dementia ⁵ • There is a mass of evidence showing that exercise programmes designed to improve strength and balance, delivered over several weeks or months by a local service can lead to a reduction in falls.⁶ • Falls and fractures in people aged 65 and over account for over 4 million hospital bed days each year in England alone.⁷ • The health care cost associated with fragility fractures is estimated at £2 billion a year.⁸ • Injurious falls, including 70,000 hip fractures annually, are the leading cause of accident-related mortality in older people.⁹

⁵ NHS Choices (2017), *Benefits of Exercise* <http://www.nhs.uk/Livewell/fitness/Pages/whybeactive.aspx>

⁶ Age UK (2010), *Stop Falling: Start Saving Lives and Money*
http://www.ageuk.org.uk/Documents/EN-GB/Campaigns/Stop_falling_report_web.pdf?dtrk=true

⁷ Royal College of Physicians (2011), *Falling Standards, broken promises: report of the national audit of falls and bone health in older people 2010*.
http://www.rcplondon.ac.uk/sites/default/files/national_report.pdf

⁸ Ibid

⁹ Ibid

	<ul style="list-style-type: none"> • After a fall an older person has 50% probability of having their mobility seriously impaired and a 10% probability of dying within a year.¹⁰ • Even where a fall does not result in major injury, it can have a devastating effect on confidence. As a result of falling, an older person may become timid and start to avoid physical activity, leading to a deterioration in their physical condition which, in turn, makes them more prone to further falls.¹¹
Emotions	<ul style="list-style-type: none"> • It is important that older people feel safe and welcome in the class. Some people have felt intimidated joining an existing exercise class where participants are already close. • For some people the fear that they won't be able to complete the exercises / that they have to face their declining abilities is a barrier to attending the class and something the instructors need to provide support around.
Agency	<ul style="list-style-type: none"> • Whether people feel that they control their life and health has a significant bearing on whether they sign up to the class.
Knowledge and Skills	<ul style="list-style-type: none"> • Instructors not only need to have a good knowledge of the Otago programme, but also a solid grounding in a range of approaches to exercise and older people. • Some of the staff have real expertise in falls, both in assessment and providing information to people about how to prevent falls. • Instructors need to have good communication skills to make participants feel comfortable and build trust. • The importance of participants having realistic expectations of the classes was highlighted, in particular being aware that this was a welcoming, inclusive environment where no special clothing was required. • During the course of the classes participants develop the skills required to complete specific exercises as well as exercise safely. The acquisition of these skills are monitored by the instructors. • Many people find out about the class from friends or from GPs, physios and other health and social care professionals. It is important that they know about the class, its target audience and benefits.

¹⁰ Help the Aged (2008), *Towards Common Ground*
http://www.ageuk.org.uk/Documents/EN-GB/For-professionals/Communities-and-inclusion/ID7539_towards_common_ground_the_help_the_aged_manifesto_for_lifetime_neighbourhoods_2008_pro.pdf?dtrk=true

¹¹ Help the Aged (2008), *Spotlight on Older People in the UK*
http://www.ageuk.org.uk/documents/en-gb/forprofessionals/research/spotlight%20report%202008_pro.pdf?dtrk=true

Table 2: Factors arising in the social context influencing the participation of older people in the programme

ISM factor	Key findings
Networks and relationships	<ul style="list-style-type: none"> • Many people find out about the exercise classes through their networks. • During the course of the classes, participants develop relationships with each other and the instructor that are important to yielding wider wellbeing benefits from the programme.
Meanings / Roles and identity / Tastes	<ul style="list-style-type: none"> • The meanings older people have of both themselves and exercise can act as a barrier and support to exercising. For some people exercise is seen as being for young people. • Many older people feel that exercise is about Lycra and is not for them. The programme works hard to create an inclusive environment that people feel comfortable exercising in their normal clothes.
Norms	<ul style="list-style-type: none"> • Attending the group helps normalise the aches and pains associated with aging.
Institutions	<ul style="list-style-type: none"> • The programme provides High Life Highland the opportunity to contribute to wider partnership priorities, specifically to reducing falls.
Opinion leaders	<ul style="list-style-type: none"> • People such as family members, health and social care professionals and current participants can be influential in persuading someone to take exercise seriously and join a class.

Table 3: Factors arising in the material context influencing the participation of older people in the programme

ISM factor	Key findings
Rules and regulations	<ul style="list-style-type: none"> The programme has had to adapt local policies to enable them to deliver the class in different locations, for example by introducing a spotter.
Infrastructure/ Time and schedules	<ul style="list-style-type: none"> There is not currently sufficient trained instructors to deliver the classes across Highland and the team are exploring different ways of doing this, for example through a video link up.
Resources	<ul style="list-style-type: none"> HLH need to cover the cost of delivering the classes, which means that either individual participants need to pay or funding is found elsewhere.
Objects	<ul style="list-style-type: none"> Having a nice room, with comfortable chairs at the right temperature and tea and coffee is important to ensuring participants feel comfortable.
Technology	<ul style="list-style-type: none"> The availability of the right video broadcast technology may enable classes to be run in more remote areas.

1.4 Conclusions and Reflections

The ISM model was used to consider the individual, social and material barriers that may be impeding and the facilitators that would be required for the exercise classes to support falls reduction in older adults to be delivered effectively by HLH. This process enabled the team to identify the wide range of people, practices and procedures that are necessary for the implementation of the programme. To facilitate individual participant attendance at the classes a number of professionals and personnel in the wider community are required to provide an element of practical as well as psycho-social support. This may be in the form of providing advertising or transport, but may also be through assisting in developing and promoting a positive message about the exercise classes to support falls reduction in older adults and encouragement to attend the classes.

Similarly, the delivery of the class is facilitated through the high quality of exercise class instructors and for this standard of quality to be assured, staff are required to be trained to an appropriate standard. To meet demand for the classes from a geographical perspective there needs to be a substantial pool of appropriately trained exercise class instructors.

Exercise class instructors also need to be provided with the necessary support and training to work specifically with older adults who may have complex physical and social support. The success of the classes to support falls reduction in older adults relies on the following five factors:

- classes being delivered in premises that are suitable for use by the target audience
- positive engagement of staff who are delivering the classes
- well trained, knowledgeable, and adaptable staff
- a high quality programme
- promotion of the programme via a wide range of networks demonstrating the benefits that can be achieved through participation.

2.0 Chapter Two

2.1 Contribution Analysis

Contribution Analysis is an approach to theory-based evaluation that can assist in developing an understanding of the contributions that are needed in order to achieve an outcome. For the first stage of the evaluation we developed a theory of change to establish how the delivery of the exercise classes to support falls reduction in older adults can contribute to the outcomes. We then summarised these to form two results chains that document the risks and assumptions associated with delivering these exercise classes and promoting physical activity with older adults in Highland. The benefit of this approach is that the results chains can provide High Life Highland with a process that can be used in the future to inform ongoing planning and development, as well as informing this evaluation.

2.1.2 Results Chains and Risks and Assumptions

During this evaluation the team from What Works Scotland, Outcome Focus, High Life Highland, and the University of the Highlands and Islands worked together to develop the results chains and the risks and assumptions. Taking a workshop approach, led by Dr Ailsa Cook (Outcome Focus) we started with the question: 'What does success look like?'. From here the outcomes of delivery of the exercise programme were considered on a short, medium, and long-term basis. This allowed us to develop two results chains – the first focusing on delivery of the exercise class, and the second focusing on promoting physical activity to older people in the Highlands.

Below is a summary of Results Chain One (Figure 3), followed by the risks and assumptions (Figure 4). For the purposes of this evaluation, due to time constraints, it was not possible to include Results Chain Two. However, the team appreciates the value of the second results chain, and HLH have agreed that it will be useful for them when conducting further evaluative work. The findings from Results Chain Two, and the associated risks and assumptions, are briefly discussed later in this chapter (and the chain itself can be found in appendix 1). HLH intend to use this information to inform future work, with the understanding that some degree of adaptation may be required based on their position at the time of use, as well as those findings documented during this evaluation.

2.1.2.1 Results Chain One: Delivering the HLH Exercise Classes to Support Falls Reduction in Older Adults

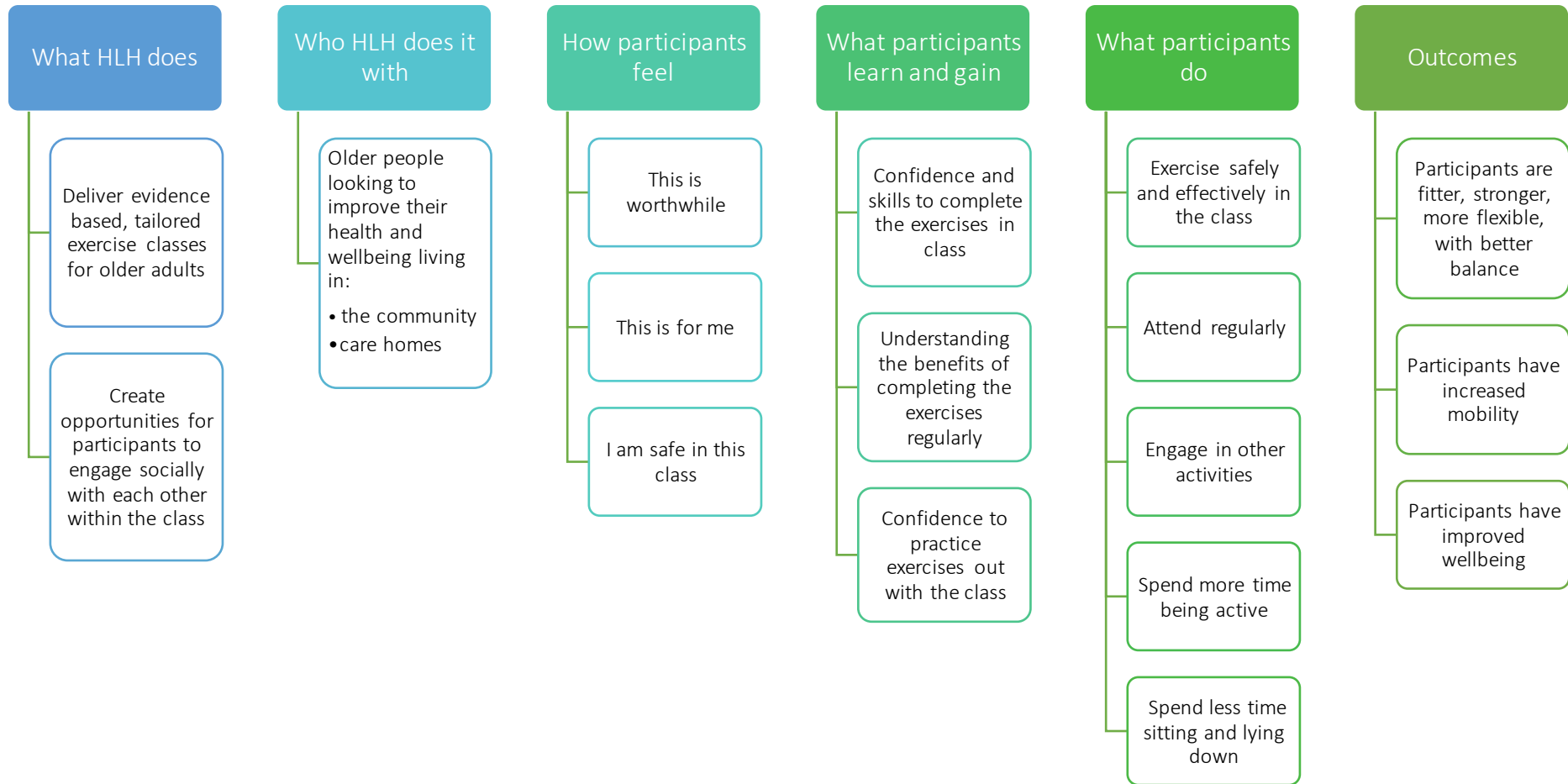


Figure 3: Results Chain One - Delivering the Otago falls prevention exercise programme

Assumptions / What needs to be in place for this to happen



Our classes meet the needs of diverse older adults, including those most at risk of falls

Participants sustain the benefits over time

The set up of the class supports participants to develop good habits about attending and exercising well

Class Instructors have the knowledge and skills to tailor the exercises to individual needs whilst maintaining the effectiveness of the programme

The venue is accessible and suitable

Participants use the skills and capabilities in the class in other parts of their life.

Risks / What might get in the way



Older adults who would benefit most don't come to the classes

The activities don't fit with older adults' schedules

In adapting the programme HLH lose credibility and effectiveness

Deteriorations in health get in the way of gains

Older adults don't feel that exercise is for them

HLH don't have sufficient trained staff to deliver the classes.

Figure 4: Risks and Assumptions for Results Chain One

The results chain (Figure 3 above) illustrates that in order for individuals to gain the benefits of participating in classes to support falls reduction in older adults delivered by High Life Highland, there are requirements that need to be in place at an individual, social and material level. These requirements, and the risks and assumptions that were identified, helped to identify the data that would be required to provide evidence for the effective delivery of the programme and similarly inform questions that were used during the focus groups hosted with class participants and exercise class instructors as part of this evaluation.

2.1.2.2 Results Chain Two: Promoting Physical Activity with Older Adults in Highland

As mentioned earlier in this chapter, as part of the Contribution Analysis approach the team worked together to define two results chains. It was not possible to use the second results chain (appendix 1) during this evaluation, but it will be useful for HLH going forward and will allow them to consider challenges and opportunities for increasing both the reach and product offering of the exercise classes to support falls reduction in older adults. During this stage we were able to establish that HLH are already successfully facilitating the exercise classes to support falls reduction in older adults in a range of locations throughout Highland, including in care homes, and have developed a good working relationship with health and social care professionals in Highland who have agreed to encourage patient referral to the classes.

HLH have worked to develop relationships with strategic partners within the community, as well as with NHS Highland and the Community Planning Partnership. At present, HLH report feedback received to date suggests that those who are aware of the exercises classes to support falls reduction in older adults understand and appreciate the importance of offering exercise specifically for older adults, and agree that doing so can contribute to addressing policy priorities.

Going forward, HLH would aspire to build on the existing programme to 1) enable more older adults with opportunities to allow them to be active for longer, 2) further raise an awareness of the programme amongst organisations and healthcare professionals, and 3) increase referrals from health and social care professionals. The anticipated outcomes that

could be achieved if HLH are successful in increasing their offering, and there is increased provision of exercise opportunities for older adults are:

- i. Older adults across Highland engage in more physical activity
- ii. Older adults across Highland are more mobile and less sedentary
- iii. Older adults are less dependent on health and social care services
- iv. Stigma around aging is reduced
- v. Older adults in Highland have a positive increase in general health and wellbeing.

As with Results Chain One (Figure 3) for Results Chain Two (appendix 1) the team identified a series of assumptions of what is required in order to achieve the above outputs, as well as risks that may get in the way of success. To summarise these; in terms of assumptions, the team agreed that any partners would need to take the exercise classes seriously; for this to happen, good relationships would be required to permit the necessary preparation and effective communication to be implemented.

It would be essential for the exercises classes to support falls reduction in older adults to be promoted appropriately; for this to happen HLH would need to ensure all partners are aware of the objectives of the exercise classes. In order to sustain growth of the programme and to continue to increase participant numbers and growth of locations where the classes are offered, it is assumed that partners will look to be provided with evidence that their classes successfully contribute to falls prevention, that the classes are worthwhile and that they make a positive contribution to the falls reduction policies.

For the risks, the team appreciated those challenges that can occur when working with multiple partners in order to deliver an exercise class. It is possible that different partners may have different expectations of who will be responsible for doing what tasks, what benefits might be achieved, as well as potentially conflicting simple but important expectations around practical arrangements such as transportation, advertisement and venues. Importantly, different partners may have pre-conceived ideas about who may be eligible and who would benefit from the exercise classes to support falls reduction in older adults, and this could result in failing to disseminate information of the classes equitably and broadly, and critically, to the correct target audience. Both risks relate closely to the

assumptions, particularly communication and relationships with partners, and promotion of the product. Being able to identify these should allow HLH to consider how they can mitigate the potential risks at an early stage.

3.0 Chapter Three

3.1 Capturing the Impact

In order to fully evaluate what the HLH exercise classes to support falls reduction in older adults does, how it works, and the difference it makes, it was vital to identify methods for capturing this impact. The data collection framework used for capturing the impact during this evaluation were designed with an 'everyday context' in mind. This was to ensure that the process could be embedded by HLH into existing everyday practices to provide the ability to monitor and assess impact on a regular basis. By doing so, it would permit a growing evidence base that could be used to feed into future organisational developments and to respond to emerging themes, which may be internal, but also external, for example, locally relevant health concerns.

The development of the data collection framework used during this evaluation was undertaken collaboratively with the HLH team. This enabled the team to identify what data is currently collected by HLH that could be used to contribute to the evidence, identify where gaps in data collection may exist, and consequently to look at approaches to collect evidence to address these gaps. While we sought to identify methods to fulfil the evidence gap, we also considered what tools could be of practical use to HLH to enable them to continue to gather feedback, and to evidence the success of their programmes once this evaluation was complete.

It was agreed that approaches to evidence collection should meet the evidence gap for this evaluation and should also: be suitable for application by existing members of HLH staff on a regular basis, should not cause excessive impact to existing duties, nor should they be out with the remit of the capabilities of the member(s) of staff, and finally, that they should not interfere with the main purpose of the class, particularly for those participating. The intention was to design a framework that could be used by HLH on a transferable basis (i.e. adaptable) to capture the impact and evaluate other products and services that are offered by HLH. The data used as evidence during this evaluation therefore consisted, in part, of that which is collected as part of HLH's normal service evaluation process. This includes participant questionnaires, in-class tests (wobble test and stand up and go test) used to

measure progress in stability, and exercise instructor reflective logs. This was augmented by data collected as part of this evaluation.

The evaluation as a whole was informed by the contribution analysis (see Chapter 2) and data was collected to capture evidence on the following:

- Facilitation and delivery of the exercise classes to support falls reduction in older adults engagement levels and types of engagement achieved
- Exercise class participant reactions, knowledge, and intentions
- Exercise class instructors’ reactions, knowledge and intentions
- Improvements to participant wellbeing as a result of participating in the exercise classes
- Barriers to participating in the exercise classes.

Table 4 below outlines the data collection methods used during this evaluation to capture the impact of the exercise classes to support falls reduction in older adults.

Table 4: Data collection methods and sources		
	Data Collection Activity	Source
i	Review of Semi structured post class evaluation questionnaires	HLH
ii	Focus group with exercise class instructors (x1)	UHI
iii	Review of reflective logs	HLH/UHI
iv	Focus groups with exercise class participants (x3)	UHI
v	Review of case studies (x10)	HLH
vi	Interviews with staff at a care facility (x4)	UHI
vii	Review of ‘stand up and go’ and ‘wobble’ tests	HLH

3.1.1 Ethics

The study was approved by the University of the Highlands and Islands Ethics Committee, and informed consent was collected from all those participants who took part in the focus groups and interviews.

3.2 Participant and Instructor Evaluation

The HLH team already implement a number of methods to evaluate the impact of participating in the exercise classes to support falls reduction in older adults, and these were used to inform the impact capture during this evaluation. Data collected by HLH prior to the start of this evaluation. This data consisted of questionnaires for exercise class participants about their motivations for choosing to take part in the classes, as well as the benefits, they have experienced as a result of participating in the classes. Exercise class instructors also carry out a series of in-class assessments, including a wobble test, and stand up and go test, and exercise class instructors engage in an ongoing process of reflection and evaluation. This data was therefore used in addition to the data collected during the evaluation.

3.2.1 Focus Groups with Exercise Class Participants

Drawing on the content of the existing evaluation questionnaires used by HLH, a focus group schedule was developed. The focus groups looked to further elaborate on those findings from the existing data, and was considered a good opportunity for speaking directly with exercise class participants. Doing this also permitted the researchers the opportunity to observe and participate in the exercise classes as well as gain knowledge about things that happen before and after the formal delivery of the class (i.e. the exercises).

The aims of the focus groups were to:

1. To evaluate the High Life Highland exercise classes to support falls reduction in older adults; and,
2. To evaluate the views of participants who take part in the exercise classes to support falls reduction in older adults in terms of how taking part in the classes can contribute toward the following perceived benefits of participation:
 - i. Perception of fear of falling
 - ii. Experience of falling
 - iii. Experience of physical activity
 - iv. Benefits and disadvantages of the programme components and structure.

Table 5 below outlines the data collection framework used for the focus groups.

Table 5: Focus Group Data Collection Framework	
	Question
1.	Tell us about why you started to attend the High Life Highland classes? When was that?
2.	Tell us about your experience of exercise in the year prior to attending the High Life Highland classes.
3.	If you think back to before you started coming to the classes, what was your experience of falling or any fears you had about falling? What are your thoughts/fears about on falling now?
4.	What difference has the class made to what you do to help you to manage the risk of falling?
5.	Thinking about what you need to do in order to get to the classes. What sorts of things make it easier to get here? What sorts of things make it more difficult to get here?
6.	What aspects of the classes do you enjoy the most?
7.	What aspects of the classes do you not enjoy so much?
8.	What are the views of your family and friends about you attending these classes?
9.	Overall, what do you feel have been the benefits of attending?
10.	What were the disadvantages to attending, if any?
11.	If the class was to operate for another 10 weeks, on how many of those weeks do you feel you would be able to attend?

Focus groups were facilitated (by UHI) in three locations: Carnegie Hall (Portmahomack), TRACC Leisure Centre (Tain), and the Mackenzie Day Care Facility (Inverness) during June and July 2017. Thirty exercise class participants agreed to take part in the focus group sessions, and one participant declined to take part. In two of the focus groups, participants were met before the scheduled exercise class was due to take place and the purpose of the focus group was explained to them, researchers from UHI then participated in the exercise class, and joined participants at the end of the class for refreshments. The focus group questions were asked during the time of the refreshments, normally lasting about thirty minutes. The decision to ask questions during this specific time was because the HLH team had highlighted that they had identified this during their evaluation as being one of the factors that motivates participants to participate in the exercises classes on a sustained basis.

Additionally, it is likely a more appropriate time to speak to the exercise class participants – when they are seated and relaxed, rather than when they are doing exercises. This format of the focus group was adapted for the day centre. In the day centre, questions were asked as part of the exercise class, since participants would be going straight to lunch following the session. Participants of the Innes Mhor classes were not in a position to participate in a focus group. Many had cognitive difficulties. Focusing on the physical activities and the instructions to undertake these activities was cognitively demanding.

3.2.2 Interviews with Care Home Staff

It was not possible to conduct a care staff focus group as the staff could not be released as a group, so instead the questions were asked either individually or in groups of two.

3.2.3 Interviews and Reflective Logs with Exercise Class Instructors

Taking a similar approach to the exercise class participant focus groups, data already collected by HLH was used to develop an approach to speak to HLH employed exercise class instructors who facilitate the exercise classes to support falls reduction in older adults in various locations throughout Highland. Initially the intention was to host a focus group with the exercise class instructors, but circumstantially it was not possible to do this, instead the following was implemented: two one-to-one interviews and three reflective logs. The sample of instructors who contributed to the evaluation represents 18% of the total number of instructors currently delivering the exercise classes to support falls reduction in older adults. This adapted approach allowed us to gather views and reflections of the instructors for the purposes of this evaluation, however, for the future it would be worthwhile for HLH to look at options for facilitating group conversations with the Instructors as this may be a chance to identify development opportunities using collaborative thinking.

The HLH team discussed the value of the reflective logs for ongoing use. The completion of these logs could assist the personal and professional development of exercise class instructors, as well as providing HLH with useful insights and opinion about the exercise classes to support falls reduction in older adults that can be used to complement any further evaluation data they intend to collect from exercise class participants.

3.2.4 Exercise Class Participant Questionnaires

Class participants are invited by HLH, to complete semi-structured questionnaires which explore the reactions to and benefits of attending an exercise class to support falls reduction in older adults. Questions also explore any barriers that may be impeding access or engagement with the classes and suggestions for improvements. These questionnaires are issued to participants who attend the older adults exercise classes to support falls reduction across each of the venues. Through these questionnaires it is anticipated that participants will be able to identify the main benefit(s) of participating in the class from a selection of choices: social benefits, improved balance, coordination, and strength.

Questionnaires also ask about participants' sense of confidence, safety, and whether they feel taking part in the class is worthwhile. Questions are included to explore the frequency of falls experienced prior to starting class, and while undertaking the class. Altogether, these questionnaires were completed by 150 participants across several of the venues.

Questionnaires are issued to participants after they have taken part in the exercise class.

None of the questionnaires used during this evaluation ask about participants expectations/objectives/goals prior to start of the classes – although HLH indicate that they do ask these questions for some of the other programmes they deliver.

3.2.5 In-Class Tests - Balance Test and Stand Up and Go Test

HLH also administers, via exercise class instructors, a series of in-class tests. These include a balance test, and a stand up and go test. The balance test is used to assess balance by measuring the length of time an individual can stand, unaided, on one foot at a time. The stand up and go test is used to assess the speed that an individual can rise from a chair (seated to standing) unaided. These tests are administered once every eleven weeks.

Individuals can elect to be tested, or they can opt out. The results of the tests are shared with the individual at the time of the test.

3.3 Data Analysis

Focus groups, interviews, reflective logs, and case studies were thematically analysed using the evaluation framework outlined in Table 6 below.

Table 6: Data Analysis Evaluation Framework

WHAT	HOW	SOURCE (see Table 4)
Reactions	<ol style="list-style-type: none"> 1. About the classes, classes, from people who haven't sustained participation in the exercise classes 2. About the classes from people who have sustained participation in the exercise classes 	iv
Observations	<ol style="list-style-type: none"> 1. Participants have a systematically increased knowledge of the exercise group 2. Participants level of confidence in terms of managing falls has increased or decreased by attending the exercise classes 3. Participants appear to enjoy participating in the classes 	iv, ii, vi, iii
Knowledge	<ol style="list-style-type: none"> 1. About community partnerships <ol style="list-style-type: none"> 1.1 Between class participants generally 1.2 Between HLH as provider of the classes, and the local communities in which they work 2. Participants have increased or decreased knowledge about how to prevent falls and falling 3. Participants have increased or decreased knowledge about making changes to reduce the risk(s) of a fall/potential fall 	iv, ii, vi, iii, v
Intentions	<ol style="list-style-type: none"> 1. About making changes and continuing to exercise 2. What activities they do and what changes they have made on a day-to-day basis to being more mobile 	iv, ii, vi, iii, v
Barriers	<ol style="list-style-type: none"> 1. To coming to the exercise classes 2. To increased mobility, generally 3. To coming to the exercise classes on a sustained basis 4. To continuing to do the exercises outside of the formal, instructed classes 5. To participating in other forms of appropriate and accessible exercise 	iv, v
Wellbeing	<ol style="list-style-type: none"> 1. Experiences of managing falls and falling 2. Perception of fear of falling 3. General state of wellbeing 4. Signs that wellbeing has improved, generally, since participating in the exercise classes 5. Any signs of degeneration of wellbeing 	iv, v

Participant data, 'stand up and go' and 'wobble' tests were analysed as follows: the stand up and go and balance tests were treated categorically by identifying those individuals for whom there was an improvement in at least two of the tests over an 11-week period. The results were either marked as a 0 to indicate either no improvement or insufficient data (where individuals had only been tested once for example), or 1 where there was improvement on a minimum of two of the three tests. The categorical application of 1 was only applied where this improvement was sustained over the period of attendance. If an individual failed to sustain improvement at 21 weeks, the result was listed as a 0.

4.0 Chapter Four

4.1 Overall Findings from the Evaluation and Case Studies

The central findings of this evaluation are presented below.

- Participants indicated the value of the classes for improved health and wellbeing, many discussed being able to do things they felt would no longer be possible, for example, going on holiday, playing with grandchildren, or taking part in hobbies such as walking and gardening.
- The social value of regularly attending the classes was highlighted by participants as a key motivator for attending the classes. Many enjoyed meeting the other class participants and some discussed developing relationships where they car-travelled together to attend the class. Others indicated that it may be the only social contact they have during the course of their week.
- Exercise class instructors clearly get a lot out of delivery of the classes in terms of enjoyment and job satisfaction, but also in seeing the class participants improve by regularly attending the classes. The level of expertise of the exercise class instructors clearly extends beyond the classroom/training course and is formed from years of successfully delivering exercise programmes, but also from years of working with people and knowing what works and what does not. This permits the exercise class instructors to deliver a class that is tailored to suit the needs of the individual class participant. Many of the class participants we spoke to believed that the exercise instructors were a true asset to HLH.
- Improved sense of balance is demonstrated through both the balance tests and by the participant feedback as well as care home staff.
- Participants and care staff reflected on the overall benefit of the classes to a sense of confidence and wellbeing.

4.1.1 Focus Groups with Exercise Class Participants

In general, those who attend the fall reduction exercise classes indicated that they enjoyed the classes and can appreciate the benefit of doing the exercises on a regular basis. Many

participants discussed doing some of the exercises outside of the class also, for example, when they are at home waiting for the kettle to boil or are sitting watching television. This is a good indicator that the classes are having a positive influence on the behaviours of participants outside of the organised classes. During the classes, it was observed that participants were able to do each of the exercises, or were provided with an adaptation to either increase or decrease the difficulty of the exercise as appropriate.

The ability to tailor the content of the classes, and provide individual attention to participants, clearly comes from the expertise of the class instructors who not only deliver the exercise classes, but also take the time to get to know the participants individually. This ensures they are not only offering the most appropriate content to the participants, but are also delivering the classes in a manner that is safe, as well as engaging and interesting. Class participants discussed the instructors as one of the key components that encourages them to sustain participation in the exercise classes. The exercise class instructors were described as *'excellent'*, and *'amazing'*; the classes were described as *'good fun'*, *'beneficial'*, *'right for me'*, and *'specific to what we need'*.

Participants indicated that they really enjoyed the social element of the exercise classes, and although not a formal part of the class itself, participants may choose to stay on after the class for a cup of tea and a chat. Some participants highlighted this to be the only opportunity for them to speak to others throughout the course of their week – something they valued highly. The development of these social networks, along with the expertise and care of the class instructors came to the fore as being a key motivating factor for coming along to the classes on a regular basis.

The success of the exercise class facilitated by HLH is likely attributable to the three components of: exercises, social network and instructor expertise. Since these three things work so well together class participants are happy and enjoy the classes, with most of those who contributed to the focus groups indicating they could see the benefits in themselves, for example, being more active, increased confidence and knowing what to do if they were to have a fall. Given this successful blend of these three elements, participants indicated that they intended to continue coming to the classes on a regular basis. Participants also

suggested they were active in passing on information about the classes to others who they thought may gain benefit from attending. There was discussion about the balance of males and females in the classes – which are for the most part, attended by more women. Although some of the participants had attempted to encourage their husbands/male partners to come along, they had been largely unsuccessful in doing so. To counteract this, they passed on the knowledge they learned in class and demonstrated the exercises at home.

Table 7 below provides a summary of the findings which can be mapped back to the Analysis Framework (see Table 6).

Table 7: Summary of findings from the focus groups with exercise class participants	
WHAT	WHAT WE FOUND
Reactions	<ul style="list-style-type: none"> • Improvement in general health and wellbeing (including increasing confidence), as well as condition specific symptoms • The classes are beneficial and is specific to individual needs – particularly good for helping to strengthen weaknesses in the body • The exercises are good and can be fitted into day-to-day life • The instructors are excellent – they provide personal attention, know participant’s strengths and weaknesses in class, as well as being able to provide good advice • The classes provide an opportunity for social interaction in a good location that is also a safe place
Observations	<ul style="list-style-type: none"> • Participants are provided with information to help them identify what to do if they do have a fall • Participants are provided with booklets to allow them to do the exercises outside of the class if they wish to do so • Participants appreciated they may be at risk of a fall and felt the exercises had increased their confidence – in terms of falling, preventing a fall, and knowing what to do if they did fall • Participants understood what muscles they were using during each of the exercises – this was explained to them by the class instructor
Knowledge	<ul style="list-style-type: none"> • Participants realise that having good balance is important, particularly as you get older, and that the exercises are useful for improving and maintaining good balance

	<ul style="list-style-type: none"> • Participants are aware of procedures to implement if they are to have a fall, or if they are with someone who falls • Participants are keen to pass on the knowledge they are learned in class to others
Intentions	<ul style="list-style-type: none"> • All participants are provided with the Otago booklet of exercises to allow them to do the exercises at home if they wish to do so • Participants indicate being able to apply the exercises in the 'real world' • Participants are able to identify and appreciate their limitations
Barriers	<ul style="list-style-type: none"> • Getting to the class was indicated to be one of the main barriers – getting access to transport, particularly public transport was discussed • Illness – self or others • Participants indicated that more people needed to know the exercise classes existed – including general public, GPs and healthcare professionals – to include knowing what the classes entail • Participants thought some people may be intimidated by exercise classes
Wellbeing	<ul style="list-style-type: none"> • Participants indicated the following improvements to their general health and wellbeing: <ul style="list-style-type: none"> i. Feeling stronger ii. More active iii. Increased independence iv. Increased confidence v. Increased mobility vi. Reduction in use of pain relief medication • Participants discussed being able to become more active since participating in the exercise classes, examples included: <ul style="list-style-type: none"> i. Walking the dog uphill ii. Lifting the grandchildren iii. Gardening iv. Walking

4.1.1.1 Case Studies of Exercise Class Participants

One component of the data already collected by HLH prior to beginning this evaluation looked to assess how exercise class participants had benefited from regularly attending the exercise classes to support falls reduction in older adults. This activity looked to gather qualitative data from participants and to learn more about exercise class participant ‘success stories’. Using this information, we developed a series of case studies. These are presented in Table 8 below.

Table 8: Case Studies of Exercise Class Participants		
WHO	BENEFIT	STORY
Female, 88	New lease of life	“Recovering from an illness, friend persuaded me to go (May 2015), could hardly get out of a chair, my mobility was not good, after two weeks there was a great improvement, regular exercise has given me a new lease of life, by Sept 2015 (5 months) I was able to go to Venice for a holiday with my son and daughter in law – I had a wonderful time on and off boats etc. I did not think I would ever be fit to go travelling again. I am going to Switzerland in March (2017), I look after myself in my own home, I cook, bake, knit, read, and do my garden.”
Female, 80	Very good for balance	“Fit enough to go to Australia, whoopee!”
Female, 78	Greatly	“While socialising the exercises improve my physical wellbeing, with the added advantage of increasing my ability to walk further and reducing any deterioration on my muscular frame.”
Female, 68	Balance	“When on bus and is going to stop – balance step down, helped my joints with movements, got rid of fluid in ankles, also helps with movements doing tai chi on a Monday morning, getting out of bed, sitting on chairs, etc.”
Female, 68	n/a	“Falls have vastly reduced, confidence to get out and about, socially the biggest thing as still able to do everything she

		hasn't been able to do in years, vastly more independent because of Otago."
Female, 78	n/a	"Confidence to continue to be independent, after her hip operation really struggled with recovery of this and had a mini stroke. But she has worked so hard and gone from having to use two sticks, to know only needing one when she is out and about, in house and at class she is able to walk unaided."

4.1.2 Interviews and Reflective Logs with Exercise Class Instructors

Those exercise class instructors who contributed to the evaluation agreed that participants who come along to the exercise classes to support falls reduction in older adults benefited from doing so, even in just a short space of time, sometimes just a couple of weeks.

Instructors discussed building trust with the exercise class participants, acting as a safety net for them, but also being able to see them on a weekly basis – far more often than their GP, and to be able to notice changes, as well as discussing things that were happening in their lives.

The instructors appreciated that falling can be distressing, and that the exercise classes to support falls reduction in older adults are an opportunity to regain confidence and independence, and to reduce the risk of future falls. However, coming to the class was considered to a possibly challenging step, and the idea of making the class social, in a nice environment was perceived as very important in both encouraging people attend, as well as sustaining participation. In order to overcome this fear of coming to the class, it was suggested that some people may benefit from an introduction to the exercises in their own home. This would allow them to get an idea of the sort of exercises they would be doing in the class setting, become comfortable with exercises, and ultimately decide if the exercise classes to support falls reduction in older adults are the right thing for them.

The level of expertise offered by the Instructors was very high, with all the Instructors being trained in a range of qualifications. Having this additional training was considered imperative in being able to offer class participants advice, guidance and adjustments to their posture while doing the exercises. Delivery of the classes was also considered to be done

best in person, allowing the Instructor to develop relationships with the class participants and to be able to provide hands on assistance as and when necessary.

The social aspect of the class was considered to be one of the key components of encouraging participation in the exercise classes to support falls reduction in older adults. This social engagement occurs both during, while doing the exercises, but also following – during the opportunity for a cup of tea and slice of home baking, the classes. Instructors noted: *'gets people out of the house'*, and: *'it's the only point of external contact and conversation'*.

The instructors clearly embraced the ethos of going beyond simply delivering an exercise class. It was clear they had built strong relationships with their class participants, that they understood motivators and barriers to coming to the classes. There was a genuine desire to encourage people to come to the classes and to provide them with information to allow them to carry out the exercises outside of the formal class, as well as information about how to prevent falls generally. Having such enthusiastic, committed, and caring instructors is a real asset to HLH, and cited by both participants and care staff as one of the key factors that has contributed to the successful implementation and uptake of the exercise classes to support falls reduction in older adults.

Table 9 below provides a summary of the findings which can be mapped back to the Analysis Framework (see Table 6).

Table 9: Summary of findings from interviews and reflective logs with exercise class instructors

WHAT	WHAT WE FOUND
Reactions	<ul style="list-style-type: none"> • Participants get benefit from coming to the classes, and this has a knock-on benefit to family and friends • The exercises are adaptable to suit the needs of the class, including individuals within the class, and can also be added to everyday activities • Instructors enjoy taking the classes and appreciate the benefits that participants can achieve through regular participation
Observations	<ul style="list-style-type: none"> • Instructors report visible improvement and benefits gained following just one week of participating in the exercise classes to support falls reduction in older adults • Participants become interested in doing other (sometimes more challenging) activities following sustained participation in the exercise classes – the impact of the classes can be life changing • The social element of the classes provides a safe environment to share experiences and to discuss improvements, challenges, motivators, etc. • Males have different health needs than females (e.g. bone density degeneration), and generally don't make up the numbers in the classes – but those that do attend, do benefit. • More could be done to raise awareness of the classes – with GPs etc., and to develop partnerships to expand the reach/grow the number of classes and locations
Knowledge	<ul style="list-style-type: none"> • Instructors have many years' worth of experience and bring this expertise to the classes drawing on other training courses (cardiac, later life, PSI) to assist with adapting exercises to suit individual participant needs, as well as conducting postural adjustments • Instructors appreciate that no two class groups are the same, and are capable of using their expertise to react to this as appropriate • The importance of 'other' things is a key focus for instructors – providing assistance, and advice as appropriate and necessary, as well as providing guidance on, for example, rug placement, phone placement, staying hydrated, numbers to call in the event of a fall, procedure for rescuing oneself (or another) in the event of a fall. Instructors indicated they know when to signpost or seek advice from elsewhere
Intentions	<ul style="list-style-type: none"> • Instructors are active in encouraging participants and giving them prompts to implement the exercises into daily routines, for

	<p>example, rolling shoulders while waiting for the kettle to boil</p> <ul style="list-style-type: none"> • Instructors explain the exercises to the participants and the benefits of them • Instructors appreciate the importance of providing exercise class participants with an environment they enjoy being in and feel safe in
Barriers	<ul style="list-style-type: none"> • Getting to the class was indicated as a barrier – transport issues, poor weather, confidence and fear of participating in an exercise class, and not knowing the classes exist • Lack of awareness within the GP and healthcare community, and lack of referrals from those who do know about the classes • Integration into an existing class group – for some people it takes a while to feel they are a part of the group • Poor health – of the participant and/or a family member • For some people an exercise class setting is just not right for them • Getting to know the exercises and gaining confidence to do the exercises that are more challenging or that participants are fearful of – the balancing exercises were discussed as a least favourite activity. • For some participants the exercises are too easy • Instructors need a wide range of skills to offer participants individual attention – this takes time to learn, and the expertise is developed with experience
Wellbeing	<ul style="list-style-type: none"> • Instructors noted the following improvements to the general health and wellbeing of exercise class participants: <ul style="list-style-type: none"> i. Increased confidence ii. Reduced fear of falling iii. Increase in social interactions iv. Feeling of achievement v. Longer term – able to live independently with reduced risk of falls

4.1.2 Care Home Staff Interviews

Care staff noted the positive value of the classes and commented that the engagement in the classes had positive, physical, mental and psychosocial benefits. Some recounted stories of how it had helped individual residents to build physical strength, concentration, mobility and confidence. Physical benefits had been specifically observed in relation to increased mobility and confidence in mobility.

Care staff sometimes encouraged residents to attend the class, because they may have forgotten that the class is on or how much they had previously enjoyed it. On the whole, care staff noted that people wanted to attend. Psychosocial benefits were raised frequently in the interviews. As the building is divided into different wings, attending the class was an occasion for individuals to meet others from other wings and a chance to see different faces. Staff members noted that individuals seemed to have an increased energy from attending, *“a type of buzz”* from doing something different and non-routine. The classes appeared to help to elevate mood to and this was of particular value to those who are wheelchair users. Increased confidence was also noted frequently in the interviews as one of the key benefits.

On cognitive benefits, one carer noted: *“It really makes them think; they have to concentrate”*.

All of the staff we spoke to mentioned the exercise specialist at some point and her positive encouragement: *“Julie is so special”*.

Case Study:

One lady though – she had a stroke – no mobility – she needed a machine to help her to move. She did exercises 3 or 4 times a day and now she walks with a Zimmer downstairs. She independently walks, she’s catheter free. She attends the exercise classes and is regularly visited by all her friends.

Barriers:

The carer interviews indicated that some people are not able to attend for a number of reasons. For some this is because of social or care needs, but there are also family visits that may coincide, or individuals may be too tired or that their dementia too severe to make attendance possible or beneficial. Some don’t appear to enjoy it, *“it’s not everyone’s cup of tea”*. Individuals were unlikely to attend if mood was low though it was also noted that it could lift mood if individuals could be encouraged to attend. Confidence was also cited as a barrier to attendance: *“Some people do not have the confidence to attend”*. Similarly, staff noted the memory challenges whereby individuals could forget they had previously attended, or able to recall that they had attended but not the exercises they had done.

4.1.3 Exercise Class Participant Questionnaires

Questionnaires examining perceptions of the falls prevention exercise class in terms of benefits and barriers were issued to all class participants who take part in classes in the Easter Ross-shire area. These were issued to nine classes and augmented an existing questionnaire database which consisted of 155 completed questionnaires.

A total of fifty-five completed questionnaires were returned, 80% of respondents were female and 20% male. Some 62% of the respondents had been attending the exercise classes for one year or more, and the rest of the respondents (38%) had commenced attending within the last year (2016/17).

Several individuals (18%) indicated that they had experienced four or more falls prior to starting the classes, though 55% reported that they had never previously fallen:

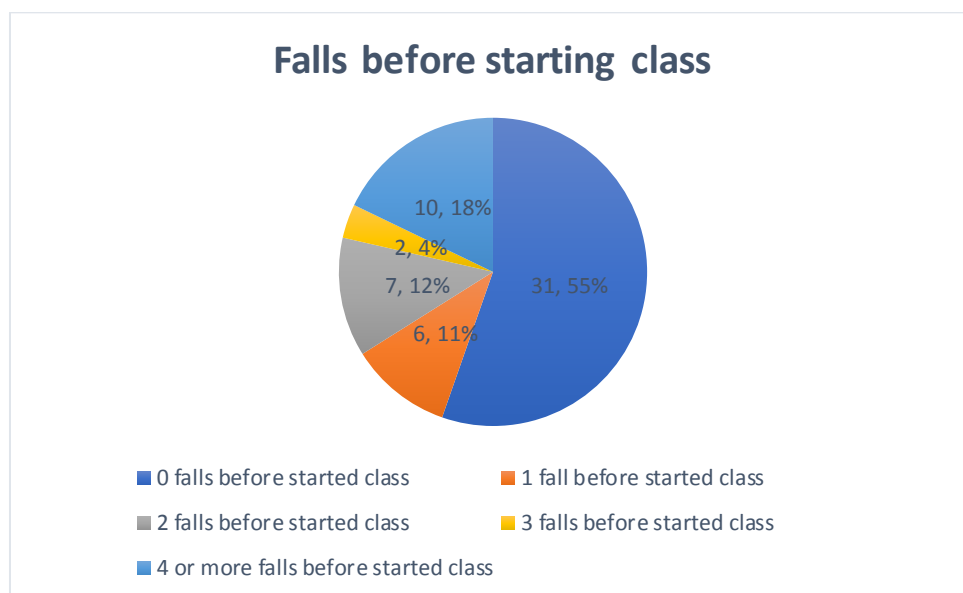


Figure 5: Falls reported before starting to participate in the exercise classes to support falls reduction in older adults

Since taking part in the exercise classes, 75% of individuals reported that they had not fallen, 21% recorded one fall, and 2% had fallen twice. None of the respondents had fallen more than twice.

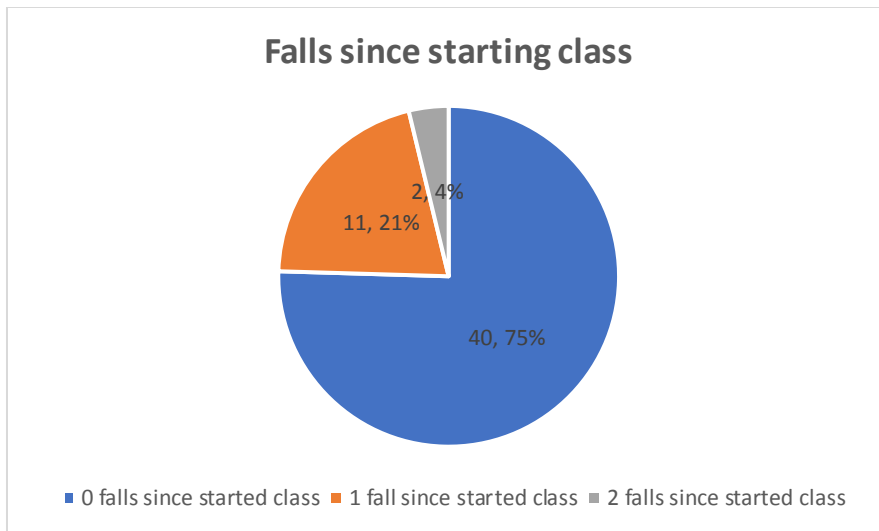


Figure 6: Falls reported since starting to participate in the exercise classes to support falls reduction in older adults

An open question asked participants to note any differences that the class had made. Responses reflected physical and psychosocial benefits.

Many individuals noted that it provided them with increased confidence as well as improved mobility, balance, strength and endurance. One participant even noted that she felt that it had improved her speed. Several commented that the benefits were not solely isolated to in the class but that there was greater confidence in moving out of the class as well. The confidence applied more broadly to other things:

The regular exercise has given me confidence to try anything and I would recommend it to all elderly people.

Many individuals referred to the instructors in terms of the positive and encouraging tone that they took and positive sense of humour.

The difference is amazing from every joint being sore and immobile I am now able to move freely. At a follow up DXA scan my bones have improved I even gained height. Which shows how I have straightened up. I had lots of physio visits prior to starting Otago but Otago has made the difference. Rachel is fabulous at taking the class.

Psycho-social benefits were frequently noted. One individual reported that the difference was “*more enjoyment in life*”. Many referred to meeting people, having a chance to talk and feeling a part of the community.

Nice to meet others with similar problems and then go for a soup and blether after class.

4.1.4 In-Class Tests

As indicated above, balance tests are used as an indication of the health benefits that people experience in attending the class. These are performed by HLH every 11 weeks and consist of three tests of balancing on one foot and then the other as well as a ‘get up and go test’ which measures speed from sitting to standing. 75 people have opted to take the test at least once, while 43 people have taken the test twice or more, thus providing an indication of improvement or deterioration in balance.

Out of the 43 people who had taken the test more than once, 31 of these had improved balance. This represents 72% of participants demonstrating an improved balance either on one or more of the test results.

5.0 Chapter Five

5.1 Conclusions and recommendations

This purpose of this work was to:

- Examine the delivery of the High Life Highland exercises classes to support the reduction of falls and promote wellbeing amongst older people in Highland
- Evaluate the effectiveness of this programme.

To do this, we collected data from people who regularly participate in the HLH exercise classes to support falls reduction in older adults, exercise class instructors, and staff at care homes, using questionnaires, in-class tests, focus groups, interviews and reflective logs. The data was collected to establish those benefits that can be achieved by participating in the exercise classes, and to understand what motivates people to regularly participate, as well as what barriers or challenges there may be to participation.

Our framework for data collection and analysis of data was based around the ISM model, which looks to explore individual, social and material factors that can contribute to the successful delivery of a service, but is also useful for unpicking complex relationships between the delivery of the service and the people who use the service. This was particularly appropriate for this evaluation, because one aim was to understand what might be useful for further development and methods for scaling up the exercise classes to support falls reduction in older adults.

Our evaluation found that those who participate in these exercise classes on a regular and sustained basis report that they experience a positive improvement in their general health and wellbeing. Many of the participants indicate they have improved confidence to move around unaided. Prior to participating in the classes, in some of the more severe cases, they may have been unable to raise from a seated position unaided. Participants also report knowing what to do if they have a fall in the future and feeling confident they are now, after participating in the classes, in an improved position to action a series of 'self-rescue' procedures. The ability to do this was attributed to the expert advice provided by the exercise class instructors, who they were viewed as an asset to HLH and the successful delivery of the exercise classes to support falls reduction in older adults.

Those exercise class instructors who were involved with this evaluation expressed great enthusiasm and motivation for working with older adults and provision of delivery of these classes. Exercise class instructors indicated they had undertaken training in a number of courses in addition to those recommended for delivery of the exercise classes to support falls reduction in older adults. The instructors agreed that knowledge gained from doing this contributed to being able to deliver the classes to a high standard, and allowed them to conduct individual participant assessments, meaning that they could tailor to suit each individual person with adaptations implemented where necessary. Having exercise class instructors that are able to do this clearly has a positive impact on the exercise class participants, and this is reflected in the feedback provided about the exercise class instructors, who were described by participants as: “*fabulous*”; “*excellent*”; and “*understanding*”.

In terms of general wellbeing, participants indicated placing a high value on the ‘social’ component of the class. These social interactions were not exclusive to the time spent in the class doing the exercises, but also related to the time spent enjoying a cup of tea and biscuit following the class. The exercise class participants were observed to really enjoy this time chatting with others, some participants indicated they take it in turns to bake goods to bring to the classes, and others indicated this is the only opportunity for them to speak to others during the course of the week. Participants also discussed opportunities to share travel in order to get to the classes, and supporting others outside of the classes, by sharing their learning knowledge of the exercises and falls prevention/self-rescue procedures.

The exercise classes to support falls reduction in older adults are well attended, and HLH figures would suggest increasing interest in attending the classes. However, exercise class participants discussed the following three points as being the main barriers, recommendations for addressing these barriers are suggested with each point:

- **Need to raise awareness of the classes** – this could be through increased promotion / posters/attendance at events, to let more people know about the classes, developing relationships with local health and social care professionals to encourage them to refer more of their patients/service users to the exercise classes to support falls reduction in older adults.

- **Being able to access the classes** – not everyone will have access to transport to get to the location of the classes, and this is further exacerbated by the remote location (of both people and locations where the classes are held), Highland geography, and poor weather conditions. These are challenges that are commonly reported and experienced for many services offered in the Highland area, and can be very difficult and costly to address. One option would be to offer the exercise classes to support falls reduction in older adults on a mobile basis, whereby a ‘mobile exercise class instructor’ is employed to travel to different locations in Highland to deliver the classes. Another option would be to consider training care home staff and others who already offer services to older adults to allow them to deliver the exercise classes to support falls reduction in older adults in their local areas.
- **Being confident to come to an exercise class** – an exercise class is not necessarily the right environment for everyone and some potential participants may have a perceived notion of exercise classes, and believe these are not for them. To overcome this, HLH could increase the intensity and frequency of the ‘taster sessions’ they already offer, doing this would allow people to try the classes out, meet the exercise class instructors, and ask questions about the classes, including how to get to the classes. If possible, some of the exercise class instructors may be willing to offer a ‘taster session’ to a potential participant on a one-to-one basis, this would allow the person to get used to doing the exercises and gaining confidence before joining a class.

In addition to the above, ill-health was also discussed, not so much as a barrier, but a factor that would impact on an individual’s ability to attend the exercise classes to support falls reduction in older adults. This is likely very little that can be done by HLH directly to monitor and address these types of events, and it is clear that the exercise class instructors care about the class participants and do what they can to take an interest in their general health and wellbeing. HLH have existing procedures in place to monitor attendance of those who have a HLH membership account, and it may be possible to review membership activity of a six-monthly basis to ascertain any changes in membership activity and to follow up on drops in frequency of membership use. This approach would need to be conducted in a manner that is sensitive to the age group of those who normally take part in these classes, but

gentle prompts may be useful in getting participants motivated to return to the classes following a period of ill-health.

Overall, our evaluation shows that the classes are valued by those who attend and provide considerable health and wellbeing benefits. One thing we were not able to explore and evidence during this evaluation, is whether there are individuals who would like to attend, but who perhaps cannot do so and the reason for this, or those who may benefit from a different approach to the class.

We were also not able to access the opinion of those who have come along to the classes previously and ceased to attend. This information would have been valuable, particularly when thinking about addressing barriers to participation and methods to improve delivery of the classes. This is something we would recommend that HLH consider examining during their future evaluation activities. The approach to data collection and analysis of collected data that was used during this evaluation was discussed from the outset and throughout with HLH. It is anticipated that the same approaches will be useful for evaluating this and other programmes offered by HLH

Appendix 1: Outcome Chain Two: Promoting Physical Activity Among Older People in Highland

