

Focus on Frailty - Return on Investment

Methodology

In 2024, Healthcare Improvement Scotland conducted a Return on Investment Analysis as part of its Focus on Frailty Improvement Programme. The purpose of this Return on Investment Analysis is to help inform NHS Board/HSCP business cases for

- Community based interventions for preventing, treating and supporting frailty
- Hospital based Comprehensive Geriatric Assessments.

The ROI tool was developed to help local commissioners evaluate the financial and societal returns of interventions aimed at improving health outcomes and reducing health and social care service usage among older adults (65+). It fills a gap not addressed by other tools in Scotland.

This document provides a summary of the methodology used to develop the Return on Investment.

Who is this tool for and where can you get help?

This tool can be used by anyone who is writing business cases or justify investment in frailty initiatives. If you are not confident in understanding and using the tool you may find it helpful to seek local support in its use from

- **Local support** – your strategic planning, health economics, business intelligence, evidence, or data colleagues may be able to help with using the tool
- **National support** – you can get answers to questions and access to training webinars by contacting his.transformationalsystemchange@nhs.scot or by going to the [Return on Investment webpage](#).

For any questions or to discuss the analysis please get in touch with his.transformationalsystemchange@nhs.scot

Methodology

1 Scoping

This tool was developed in response to local health and social care staff finding that their business cases for frailty initiatives were not gaining traction with decision makers. It was felt that the business cases could be strengthened if they could articulate the impact that their initiatives had on the level of demand for health and social care services. Therefore, we focused this study on quantifying the reductions in demand for health and social care services arising from initiatives. We excluded quality of life impacts on people and their carers from this analysis as it was felt that other sources of evidence were stronger for articulating these – for example patient stories. It was felt that by keeping the analysis to the financial impact on public services, the tool would have a greater impact on decision makers.

2 Literature review and feasibility study to identify relevant economic evidence

This section outlines how we identified which initiatives to include within the tool, and which evidence sources we included and excluded from the tool.

2.1 Literature Review

We conducted pragmatic, targeted searches (not exhaustive) to identify studies reporting economic outcomes related to care for older adults, falls, and frailty.

This allowed us to identify the following interventions for inclusion in the tool

- Exercise programmes (within community settings)
- Occupational therapy – particularly assessments and adaptations (assessments in any settings)
- Case management (within community settings)
- Combination initiatives that include nutrition, exercise and cognitive training (within community settings)
- Comprehensive geriatric assessment (within hospital settings)
- Future care planning (in any setting).

Evidence was gathered for the following initiatives but not included within the final tool as the evidence on their impact on demand for health and social care services was mixed or unclear.

- Preventative home visits to explore whether these postpone deterioration in frailty
- Nutrition as a stand-alone intervention.

Inclusion criteria - when deciding what studies were included within the Return on Investment analysis, we included research where

- There was evidence of health improvements (ie the intervention had an impact)
- There was evidence of reductions in demand for health and/or social care services (ie where that impact could be quantified)
- They were relevant to, or applicable within, Scotland
- The evidence was suitably robust – utilising professional judgement.

Exclusion criteria - we identified many high-quality studies that demonstrated various impacts on individuals. However, these were excluded where we were unable link these directly or indirectly to a reduction in demand for health and social care services. For example, we were able to link evidenced reductions in frailty and reductions in fall rates to reduced demand for services, but we were unable to link improved functionality to quantified reduction in service demand.

2.2 Stakeholder Involvement

We sense checked the initiatives and evidence selected for inclusion within the tool through several mechanisms

- We ran a stakeholder workshop that brought together experts in frailty to sense check the findings of the literature review and identify gaps and risks in the search. This enabled us to refine a further search to fill gaps or sense check whether our findings matched other findings in the literature.

- We circulated the tool amongst a number of economic, research, and frailty experts for review and comment. This provided reassurance that the sources selected were sufficiently robust and relevant to use for the purpose of the return on investment tool.

3 Tool Development

This section outlines the methodology we used to develop the return on investment tool.

3.1 Model Design

We built the tool in excel for interactivity and customisability. We did not use macros within the excel tool to ensure that all functionality is preserved when downloaded by an NHS Scotland or Local Authority computer, which often blocks macros.

It allows users to input the cost of the planned initiative and the proposed number of individuals within the targeted population that they are planning on supporting.

There are two choices within the targeted population

- Where you are targeting just those with frailty, or who you suspect is frail – noting that frailty is currently underassessed in Scotland
- Where you are targeting people over 65 or over 85 – it then uses the available evidence on the proportion of the population over 65 and over 85 that are expected to be frail to include in the subsequent calculations.

3.2 Return on investment perspectives

We built in the following perspectives within the tool

- The tool provides a financial return for each outcome within each intervention that can be added up to represent the financial return across all impact areas – ie the total pounds saved for each outcome and in total.
- The tools provides a quantified unit return for each outcome – ie the number of fewer appointments, visits, medication units and bed days.
- When the cost of the proposed intervention is included by the user it produces an overall return on investment – eg for every £1 spent it returns £X.

3.3 Cost and benefit estimates

- Impacts, incidence rates and financial proxies were extracted directly from selected studies.
- We calculated a 12-month period of benefit within the tool, therefore no discounting outcomes beyond one year was included. We did not specify within the tool when those 12 months of benefit would fall as we felt they were not required for the tool to be robust enough to be used for its intended purpose – of including estimated impact within business cases used by local stakeholders in health and social care in Scotland.

3.4 Technical adjustments

We included a 25% Optimism Bias to assume that the benefits will be 25% lower than the evidence estimates. We used the Greater Manchester Combined Authority Cost Benefit Analysis guidance to identify 25%.¹

No other technical adjustments were made as we felt they were not required for the tool to be robust enough to be used for its intended purpose – of including estimated impact within business cases used by local stakeholders in health and social care in Scotland.

3.5 Quality assurance and sensitivity analysis

- The tool was tested and quality assured by a combination of health economists and a mathematician within Healthcare Improvement Scotland
- A full sensitivity analysis was undertaken by the project team. We increased and decreased each data point to identify where the subsequent calculated figure increased or decreased by more than that 20% (ie that the change had a disproportionate impact on the overall calculation). No sensitivities were identified within the model from the sensitivity analysis.
- We will continue to assess feedback once the tool is in use to determine changes required in future iterations.

¹ Greater Manchester Combined Authority (2014) Supporting public service transformation: cost benefit analysis guidance for local partnerships. [Research: Cost Benefit Analysis - Greater Manchester Combined Authority](#)