



# Economic evaluations

## REHABILITATION, REABLEMENT, & RESTORATIVE CARE

This evidence theme is a summary of one of the key topics identified by a scoping review of rehabilitation, reablement, and restorative care research.

### Key points

- The cost of healthcare and health resources is increasing at a rapid rate, and the demands on aged care services continue to rise despite limited resources.
- With limited aged care resources available, it is increasingly important to use economic evaluation principles to prioritise cost-effective care.
- Rehabilitation, reablement, and restorative care interventions can be cost-effective, as they aim to reduce hospital length of stay and prevent early admission to residential aged care.
- Understanding the costs and effectiveness of healthcare interventions will allow policymakers and major stakeholders to make informed decisions for service delivery.

### What do we mean by economic evaluations?

The costs of healthcare continue to increase, accompanied by growing demands on health services by an ageing population. However, healthcare resources remain limited. This creates funding challenges for the healthcare system, service users, and their families. Economic evaluations of healthcare interventions provide the means to compare the costs and outcomes of alternative courses of action [1,2], subsequently identifying interventions that can deliver the desired outcomes at the lowest cost.

## What is known about economic evaluation analyses?

We found ten reviews on economic evaluations of rehabilitation, reablement, and restorative care interventions in aged care. Comparative economic cost analyses in rehabilitation showed that:

- The cost of prompted voiding plus exercise program was four times higher than usual care as it required additional staff to deliver the service. [3, 4] However, these findings were reported in 2005 and would not reflect current costs.
- Exergames used to promote exercise can be integrated into falls prevention programs at a low cost. Exergames are cost-effective in improving the strength and balance of older people in residential aged care facilities. [5,6]
- Functional Incidental Training (FIT) targeted at specific individual needs such as standing up and toileting, was no more expensive than usual care. [7,8]

Reviews comparing the cost-effectiveness of reablement and restorative care interventions found that:

- The costs associated with a Home Independence Program (HIP) were lower than usual home care. This equated to a median cost saving of AU\$12,500 across five years. [9-12] The HIP program included home visits, training in the activities of daily living, task redesign, exercise, and different types of self-care activities with ongoing personal care reflecting the goals of the client.
- The costs of rehabilitation directed by occupational therapists (OT) and physiotherapists were lower than usual care. [13]
- Both the HIP and therapist-driven interventions reduced the costs of home care services and personal care costs. They also lowered the risk of emergency department visits and hospital costs.
- The mean cost of reablement services for maintaining functional independence was lower than usual care. [14,15] However, this finding was based on one study demonstrating low methodological quality. [15]
- Occupational therapy in social services reablement programs involving housing adaptations and equipment prescription is potentially cost-effective. These services often enable older people to live in their own homes longer. However, it was not possible to determine the cost-saving contribution of the OT component which was reported as part of overall rehabilitation and reablement social services cost-effectiveness. [16]
- Enhanced home care interventions involving nursing care, falls prevention, interdisciplinary care coordination, telemedicine, and restorative care or reablement showed varying levels of cost-effectiveness compared with usual care. [17]
- Alternative nursing care focused on health promotion and preventive care had positive cost-effectiveness

and impact on health-related quality of life. However, it showed inconsistent results for function, use of health services, mood, and mental health. [17]

- Interdisciplinary care coordination in the form of integrated home and discharge planning may be cost-effective.
- Telemedicine or remote monitoring had inconsistent cost-effectiveness impact on function, use of health services and physical health.
- Restorative care and reablement services were cost-effective for function and use of health services. By modifying their strategies, rehabilitation professionals such as OTs or physiotherapists who are already providing home care services might further reduce these costs.

## What can an individual do?

Health economic evaluations can be used to:

- Inform aged care users and their families that there are options for rehabilitation, reablement, and restorative care services in aged care, depending on their goals, priorities, and funding benefits.
- Direct the service users and families to organisations that can assist them to make informed decisions about cost-effective rehabilitation, reablement, and restorative care options.

## What can an organisation do?

Organisations can support older people in aged care by:

- Providing opportunities for the older person and/or the family to be informed about cost-effective rehabilitation, reablement and restorative care options.
- Providing access to, or resources for, cost-effective rehabilitation, reablement and restorative care programs, based on the older person's goals and priorities and funding benefits.

## References:

1. Turner HC, Archer RA, Downey LE, Isaranuwachai W, Chalkidou K, Jit M, et al. An introduction to the main types of economic evaluations used for informing priority setting and resource allocation in healthcare: Key features, uses, and limitations. *Front Public Health*. 2021;9.
2. Drummond MF, Sculpher MJ, Claxton K, Stoddart GL, Torrance GW. *Methods for the economic evaluation of health care programmes*. 4th ed. Oxford: Oxford University Press; 2015.
3. Benjamin K, Edwards N, Ploeg J, Legault F. Barriers to physical activity and restorative care for residents in long-term care: A review of the literature. *J Aging Phys Act*. 2014;22(1):154-65.

4. Ouslander JG, Griffiths PC, McConnell E, Riolo L, Kutner M, Schnelle J. Functional incidental training: A randomized, controlled, crossover trial in Veterans Affairs nursing homes. *J Am Geriatr Soc.* 2005;53(7):1091-100.
5. Corregidor-Sanchez AI, Segura-Fragoso A, Rodriguez-Hernandez M, Criado-Alvarez JJ, Gonzalez-Gonzalez J, Polonio-Lopez B. Can exergames contribute to improving walking capacity in older adults? A systematic review and meta-analysis. *Maturitas.* 2020;132:40-8.
6. Stanmore EK, Mavroei A, de Jong LD, Skelton DA, Sutton CJ, Benedetto V, et al. The effectiveness and cost-effectiveness of strength and balance Exergames to reduce falls risk for people aged 55 years and older in UK assisted living facilities: A multi-centre, cluster randomised controlled trial. *BMC Med.* 2019;17(1):49.
7. Crocker T, Forster A, Young J, Brown L, Ozer S, Smith J, et al. Physical rehabilitation for older people in long-term care. *Cochrane Database Syst Rev.* 2013(2):CD004294.
8. Schnelle JF, Kapur K, Alessi C, Osterweil D, Beck JG, Al-Samarrai NR, et al. Does an exercise and incontinence intervention save healthcare costs in a nursing home population? *J Am Geriatr Soc.* 2003;51(2):161-8.
9. Bersvendsen T, Jungeilges J, Abildsnes E. Empirical evaluation of home-based reablement: A review. *Nordic Journal of Health Economics.* 2021;9(1).
10. Pettersson C, Iwarsson S. Evidence-based interventions involving occupational therapists are needed in re-ablement for older community-living people: A systematic review. *Br J Occup Ther.* 2017;80(5):273-85.
11. Sims-Gould J, Tong CE, Wallis-Mayer L, Ashe MC. Reablement, reactivation, rehabilitation and restorative interventions with older adults in receipt of home care: A systematic review. *J Am Med Dir Assoc.* 2017;18(8):653-63.
12. Lewin G, Allan J, Patterson C, Knuiman M, Boldy D, Hendrie D. A comparison of the home-care and healthcare service use and costs of older Australians randomised to receive a restorative or a conventional home-care service. *Health Soc Care Community.* 2014;22(3):328-36.
13. Kjerstad E, Tuntland HK. Reablement in community-dwelling older adults: A cost-effectiveness analysis alongside a randomized controlled trial. *Health Econ Rev.* 2016;6(1):1-10.
14. Cochrane A, Furlong M, McGilloway S, Molloy DW, Stevenson M, Donnelly M. Time-limited home-care reablement services for maintaining and improving the functional independence of older adults. *Cochrane Database Syst Rev.* 2016;10(10):CD010825.
15. Lewin GF, Alfonso HS, Alan JJ. Evidence for the long term cost effectiveness of home care reablement programs. *Clin Interv Aging.* 2013;8:1273-81.
16. Boniface G, Mason M, Macintyre J, Synan C, Riley J. The effectiveness of local authority social services' occupational therapy for older people in Great Britain: A critical literature review. *Br J Occup Ther.* 2013;76(12):538-47.
17. Flemming J, Armijo-Olivo S, Dennett L, Lapointe P, Robertson D, Wang J, et al. Enhanced home care interventions for community residing adults compared with usual care on health and cost-effectiveness outcomes: A systematic review. *Am J Phys Med Rehabil.* 2021;100(9):906-17.
18. van Dijk M, Vreven J, Deschodt M, Verheyden G, Tournoy J, Flamaing J. Can in-hospital or post discharge caregiver involvement increase functional performance of older patients? A systematic review. *BMC Geriatr.* 2020;20(1):362.

Cite as: ARIIA Knowledge & Implementation Hub. Economic evaluations: Rehabilitation, reablement, & restorative Care. Evidence Theme. Adelaide, SA: ARIIA; 2022 [updated 2023 Aug].

[www.ariia.org.au](http://www.ariia.org.au)

For more information email [ariia@ariia.org.au](mailto:ariia@ariia.org.au) or call 08 7421 9134

ARIIA - Level 2, Tonsley Hub, South Rd, Tonsley SA 5042

ARIIA was established as an independent, not-for-profit organisation, set up to lead the advancement of the aged care workforce capability by promoting and facilitating innovation and research to improve the quality of aged care for all Australians.

**ariia** Aged Care Research  
& Industry Innovation  
Australia

 Flinders  
University

 Australian Government  
Department of Health  
and Aged Care