

CASE STUDY

Circular Economy Initiative: repairing and reusing walking aids

FOCUS AREA

Maximising reuse and extending the life of products is a key component of the Circular Economy and an underlying principle of the Scottish Government's Circular Economy Strategy - Making Things Last. This case study is focused on initiatives to maximise the reuse of walking aids within Scotland's NHS Health Boards and Joint Equipment Stores.



WASTE

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BACKGROUND AND AIMS

The term walking aids is used to collectively refer to walking sticks, crutches and walking frames. NHS Scotland Health Boards procure walking aids for use within acute units, physiotherapy and occupational therapy departments. Walking aids that are issued to patients via local health & social care services are supplied to Joint (or Community) Equipment Stores (JES) and are procured by Health Boards and Local Authorities.

Walking aids are relatively low-cost items, ranging from £2.50 - £3.00 per unit for walking sticks, and £20 - £40 for walking frames. Total expenditure in 2017/18 on walking aids by Health Boards via the NHS Scotland framework was approximately £690,000 with a further £62,000 procured for Joint Equipment Stores.

Often manufactured in the Far East, walking aids are commonly supplied with a 12-month warranty period (or in a few cases a 2-year warranty). The relatively short-term warranty and low cost has led to the perception that walking aids are single use items and they are therefore often discarded after they have been used for a short period of time.

In 2018/19 Zero Waste Scotland on behalf of NHS Scotland commissioned Sustainable Procurement Limited (SPL) to undertake a Product Innovations Study, the aim of which was to explore the barriers and potential opportunities associated with implementing a more circular approach for the supply of walking aids. Supply models which are aligned with a circular economy minimise the environmental impact of products by extending their working life via repair and reuse, and often have the benefit of creating local jobs and reducing spend. The aim of the study was to determine the current level of walking aid reuse, explore potential barriers and to quantify environmental, social and economic opportunities.

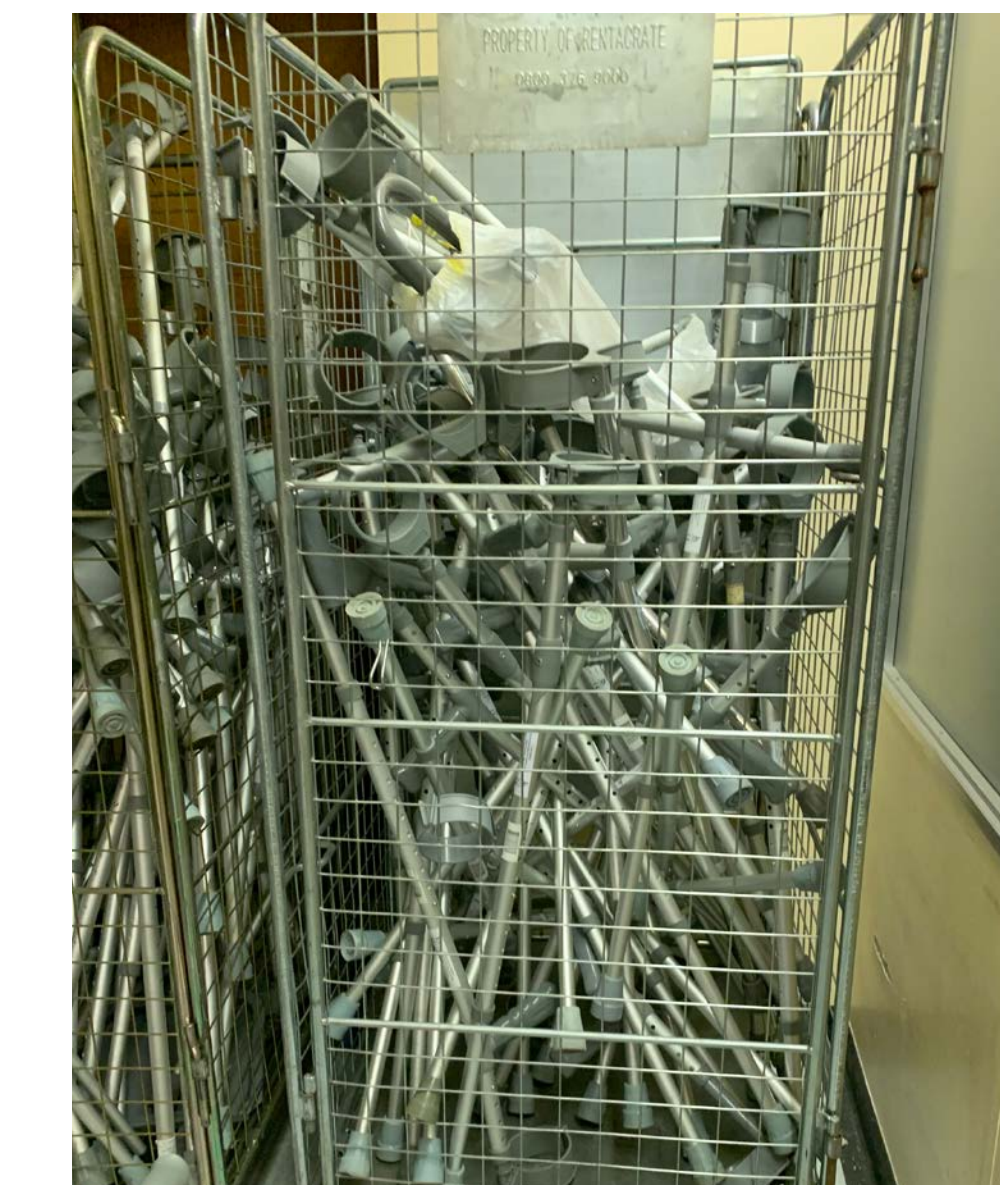
BARRIERS & ACTIONS

In 2019/20 NHS Scotland set up a short life working group to undertake further research into current walking aid reuse activities within Health Boards. The group highlighted the following considerations:

- **Staffing resources:** The collection, checking and preparation of the aids requires staff resources including physios to undertake initial checks, recovery of the walking aids, porters to transport walking aids on site, staff to clean and repair the items, and logistics/transport teams to assist with collection and redistribution.
- **Infection control:** Walking aids need to be thoroughly cleaned before they can be reused and distributed.
- **Cost effective logistics:** Where walking aids are used in the community, it may not always be cost effective to collect used aids from patients' homes. Health Boards may therefore need to partner with local authorities (e.g. via drop off at Household Waste and Recycling Centres). They may also ask patients to return walking aids to the Health Boards directly during follow-up appointments.
- **Communication:** Patients should be told what to do with their walking aid once they no longer need it. This is essential to maximise return rates.
- **Storage space: Health Boards** will need to find space to store walking aids prior to refurbishment and in advance of redistribution. Additional storage space will allow physios to undertake initial checks and segregate items
- **Spare parts:** This cost needs to be budgeted for. The most common parts needing replacement are the ferrules (rubber feet) and pins.
- **Redistribution:** Maximising walking aids reuse may need support/leadership from procurement, otherwise staff may be likely to continue to purchase items. All Health Boards have a licence to use the warp-it platform which can be used to market reused items, and to track items, show their age and their time spend in use.

BENEFITS & IMPACTS

The Product Innovations Study compared the costs and environmental impacts of the current low levels of reuse with a circular scenario where reuse was more established. Outputs from the modelling indicate that the circular economy scenario results in a modest financial benefit in the order of 6% when compared to the baseline scenario, which is due to the avoided cost of purchasing new walking aids albeit staffing resources associated with logistics, cleaning and refurbishment. Environmentally, a potential saving of 26% can be achieved by increasing the reuse of walking aids (equivalent to 232,249 kg CO2e/yr).



LESSONS

The study has demonstrated that increasing the reuse of walking aids can deliver environmental, financial and social benefits. Several NHS Scotland Health Boards have started to implement local reuse initiatives, several of which involve local partners including businesses, local authorities and skills/employment schemes (e.g. including the prison service). The solutions vary subject to local geography, storage and skills/resource availability.

NHS Greater Glasgow & Clyde set up a relatively large-scale reuse project for walking aids, office equipment and other non-medical surplus goods. Originally the project was based in Hillington and resourced by local partners, however rationalisation of the NHS Greater Glasgow & Clyde estate meant that in December 2019 the reuse facility was able to move into a former ward at the old Yorkhill hospital site (now known as the West Glasgow Ambulatory Care Hospital). The Yorkhill site is utilised to clean, repair and store items from across Greater Glasgow and Clyde (including the nine acute hospital sites) so that they can be redistributed for reuse. Once ready for reuse, the items are marketed internally via 'Warp it', the Waste Action Reuse Portal. The project is led by the procurement manager who uses the portal to track savings, and is well placed to encourage colleagues to make use of items listed on Warp it rather than purchasing new. Unfortunately, due to Covid-19, the reuse project is currently on hold. Plans for relaunch are currently being drawn up and opportunities for expansion and joint working are being considered.